TABLES OF

Compound Interest Functions

and

Logarithms of Compound Interest Functions

Life Insurance and Disability Insurance Functions

Probability and Statistical Functions

and

Seven Place Logarithms of Numbers From 1 to 100,000

JAMES W. GLOVER

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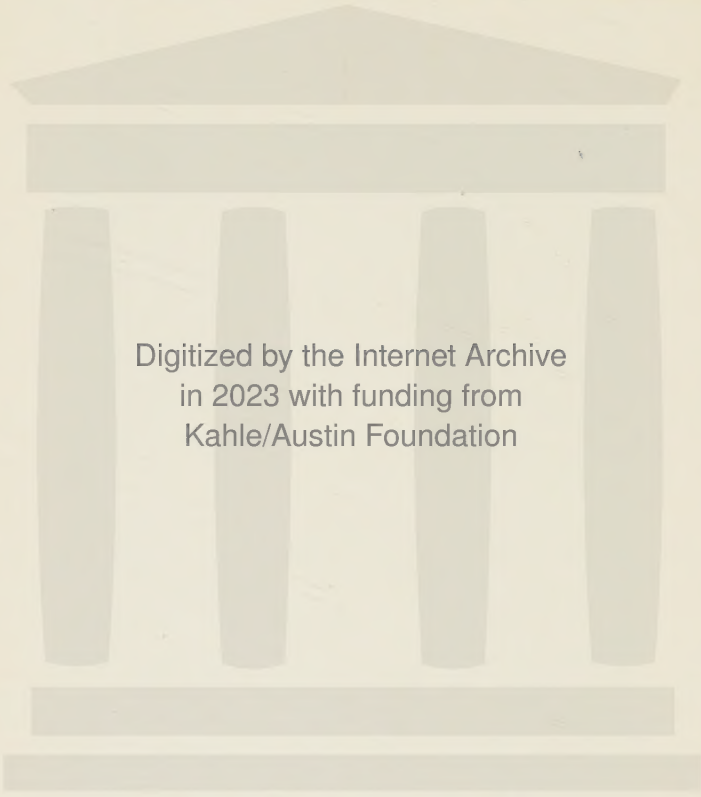
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TABLES

of

APPLIED MATHEMATICS

in

FINANCE, INSURANCE, STATISTICS

Edited By

JAMES W. GLOVER, PH. D.

Professor of Mathematics and Insurance
University of Michigan

Compound Interest Functions

and

Logarithms of Compound Interest Functions
Life Insurance and Disability Insurance Functions
Probability and Statistical Functions

and

Seven Place Logarithms of Numbers From 1 to 100,000

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PREFACE

THIS book is designed to be used in connection with college textbooks on finance, insurance and statistics. The steadily increasing number of students in colleges and universities pursuing courses in applied mathematics along one or more of these lines has created a demand for a book of tables including seven place logarithms of numbers to accompany the textbooks in these subjects.

If tables used in the examination room are in the textbook, it is difficult for the instructor to prepare a satisfactory examination, because many of the questions could be answered by direct reference to the textbook. If the necessary tables for numerical calculations are in a separate book, it may be used in the examination room. This leaves the instructor free to make his examination questions cover not only the theory in the textbook but also the solution of problems requiring consultation of tables and the ability to use them intelligently.

Although this book is sufficient for the requirements of college students, it is by no means limited in its use to their needs. An examination will show that it is of practical service to actuaries, statisticians, biometricians, engineers, astronomers, bankers and others who have occasion to make computations in interest, insurance and statistics.

Part I contains values of compound interest functions to eight places of decimals and seven place logarithms of values of compound interest functions for thirty-two rates of interest. Twelve of these rates under $1\frac{1}{8}\%$, inclusive, given for two hundred years, make it possible to solve many practical problems involving rates of interest compounded semi-annually, quarterly and monthly. The rates $7/24\%$, $5/12\%$, and $7/12\%$, for two hundred years, and the rates $1/3\%$ and $2/3\%$ for the second hundred years have not been published heretofore. A departure from the usual presentation is the inclusion of the sinking fund function, that is, the annuity which will amount to 1 at the end of n years.

A distinctive feature of these tables is the seven place logarithms of the values of the six compound interest functions. Logarithms to less than seven places would be useless, because most interest calculations arising in practice could not then be carried out to the nearest cent, and many not even to the nearest dollar.

The solution of problems often requires the values of compound interest functions for fractional periods, and no table would be complete which did not provide for the conversion of functions involving installment payments into one or more of the six tabular

functions. Comprehensive tables of values and logarithms of values of conversion factors, where $p=2, 3, 4, 6, 12, 13, 26, 52, 365, \infty$, are included for this purpose.

It sometimes happens that values are required to a larger number of decimal places than can be found in published tables. To meet this need and to aid in the construction of fundamental tables, the logarithm of the accumulation factor, $1+i$, is given to twenty decimal places for certain rates of interest.

Part II contains values of life insurance and disability insurance functions. Commutation columns based on the American Experience table of mortality with interest at 3%, 3½% and 4% enable the teacher to devise a variety of instructive problems in the calculation of values of annuity and insurance functions. They may also be used to compute functions not contained in these tables. The commutation columns based on the United States life tables at 5% serve a similar purpose.

The American Experience, 4%, accumulated value of 1, forborne life annuity due, single premium endowment insurance, single premium temporary insurance and temporary life annuity due, are included. With the aid of these tables the actuary and student can calculate terminal reserves, paid-up insurance values, pure endowment values and extended insurance values for any form of policy. The interest rate, 4%, was chosen because the values of these functions at 3% and 3½% have already been published in Dawson's Derived Tables.

Hunter's Makehamized American Experience table of mortality and commutation columns, 3½%, for two lives, equal ages, may be used to teach the student how to make calculations on joint lives.

The United States life tables for white males and for white females in the original registration states, 1910, are to acquaint the student with general mortality rates in this country.

Hunter's total and permanent disability tables are to familiarize the student with elementary calculations in connection with the disability provision in life insurance policies.

Part III contains tables of probability and statistical functions. One of the most important of these tables shows the area, ordinate, and second to eighth derivatives of the normal curve of error. It is more extensive than any other published table of these functions, and very useful in the application of the methods of Charlier to frequency curves. The logarithms of the Gamma Function serve the same purpose in connection with Pearson's frequency curves.

Newton's, Stirling's, Bessel's and Everett's interpolation coefficients are employed to compute the value of a function and its first derivative. Coefficients to express leading minor differences in terms of leading major differences for interpolating values between statistical ordinates are given for several types of formulas. The coefficients in Lubbock's summation formula are to facilitate the calculation of functions in statistical and actuarial theory. The table of logarithms of factorial n and a new table of logarithms of binomial coefficients are useful in the theory of probability.

The mean value table enables one to determine practically by inspection the exponential growth curve which most closely reproduces a series of statistical ordinates. It is the first table of this character which has been published covering any considerable range.

Part IV contains a seven place table of common logarithms of numbers from 1 to 100,000, also tables to convert common into natural and natural into common logarithms. They have been reproduced by photographic process from the well known manual of logarithms edited by Dr. Bruhns, which is practically free from error. These tables greatly reduce the labor of making calculations in compound interest and statistics and also enable the student to acquire some skill in the use of logarithms.

In the preparation of this book published tables have been edited and new tables computed. I desire to acknowledge the helpfulness of works which have been consulted, and to refer particularly to the following sources of information: Werker, Die zusammengesetzte Zinsen und Zeitrenten oder Annuitätenrechnung; Spitzer, Zinseszinsen und Rentenrechnung; Rice, Theory and Practice of Interpolation; Mantz, Joint Life Commutation Columns and Rates; Insurance Department of Wisconsin, Single Premium Temporary Insurance Tables.

I am indebted to my colleague, Professor Harry C. Carver, for valuable suggestions and aid in directing computation of tables, and to assistants without whom the lengthy calculations required would have been impossible.

The publication of so many tables necessarily involves the introduction of errors, and I shall be grateful for corrections received from those who use this book.

Ann Arbor,
August, 1930

James W. Glover

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PART I

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Formulas connecting Fractional and Integral Functions

$$s^{(p)}_{\overline{n}|i} = s^{(p)}_{\overline{1}|i} \cdot s_{\overline{n}|i} \qquad \$^{(p)}_{\overline{1}|i} = (1+i)^{1/p} \cdot s^{(p)}_{\overline{1}|i} = i/p + s^{(p)}_{\overline{1}|i}$$

$$^{(m)}s^{(p)}_{\overline{n}|j} = \tfrac{1}{m} \cdot s^{(p/m)}_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot s^{(p/m)}_{\overline{1}|j/m} \cdot s_{\overline{mn}|j/m}$$

$$^{(m)}\$^{(p)}_{\overline{n}|j} = \tfrac{1}{m} \cdot \$^{(p/m)}_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot \$^{(p/m)}_{\overline{1}|j/m} \cdot s_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot (1+j/m)^{m/p} \cdot s^{(p/m)}_{\overline{1}|j/m} \cdot s_{\overline{mn}|j/m}$$

When $m/p = k$ is an integer, $s^{(p/m)}_{\overline{1}|j/m} = s^{(1/k)}_{\overline{1}|j/m} = k/s_{\overline{k}|j/m}$

$$a^{(p)}_{\overline{n}|i} = s^{(p)}_{\overline{1}|i} \cdot a_{\overline{n}|i} \qquad \mathrm{a}^{(p)}_{\overline{1}|i} = (1+i)^{1/p} \cdot a^{(p)}_{\overline{1}|i} = d/p + a^{(p)}_{\overline{1}|i}$$

$$^{(m)}a^{(p)}_{\overline{n}|j} = \tfrac{1}{m} \cdot a^{(p/m)}_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot s^{(p/m)}_{\overline{1}|j/m} \cdot a_{\overline{mn}|j/m}$$

$$^{(m)}\mathrm{a}^{(p)}_{\overline{n}|j} = \tfrac{1}{m} \cdot \mathrm{a}^{(p/m)}_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot \$^{(p/m)}_{\overline{1}|j/m} \cdot a_{\overline{mn}|j/m} = \tfrac{1}{m} \cdot (1+j/m)^{m/p} \cdot s^{(p/m)}_{\overline{1}|j/m} \cdot a_{\overline{mn}|j/m}$$

When $m/p = k$ is an integer, $\$^{(p/m)}_{\overline{1}|j/m} = \$^{(1/k)}_{\overline{1}|j/m} = k/a_{\overline{k}|j/m}$

Notation: The symbol under the bracket certain is the term; to right of bracket certain is the rate of interest; in upper left parenthesis is the frequency of conversion or compounding; in upper right parenthesis is the number of installments payable each unit of the term. The Roman **a** denotes the present value of an annuity due; the $ denotes the amount of an annuity due.

The Number of Each Day of the Year Counting from January 1

For *leap years* the number of the day is *one greater* than the tabular number after February 28.

Day of Month	January	February	March	April	May	June	July	August	September	October	November	December	Day of Month
1	1	32	60	91	121	152	182	213	244	274	305	335	1
2	2	33	61	92	122	153	183	214	245	275	306	336	2
3	3	34	62	93	123	154	184	215	246	276	307	337	3
4	4	35	63	94	124	155	185	216	247	277	308	338	4
5	5	36	64	95	125	156	186	217	248	278	309	339	5
6	6	37	65	96	126	157	187	218	249	279	310	340	6
7	7	38	66	97	127	158	188	219	250	280	311	341	7
8	8	39	67	98	128	159	189	220	251	281	312	342	8
9	9	40	68	99	129	160	190	221	252	282	313	343	9
10	10	41	69	100	130	161	191	222	253	283	314	344	10
11	11	42	70	101	131	162	192	223	254	284	215	345	11
12	12	43	71	102	132	163	193	224	255	285	316	346	12
13	13	44	72	103	133	164	194	225	256	286	317	347	13
14	14	45	73	104	134	165	195	226	257	287	318	348	14
15	15	46	74	105	135	166	196	227	258	288	319	349	15
16	16	47	75	106	136	167	197	228	259	289	320	350	16
17	17	48	76	107	137	168	198	229	260	290	321	351	17
18	18	49	77	108	138	169	199	230	261	291	322	352	18
19	19	50	78	109	139	170	200	231	262	292	323	353	19
20	20	51	79	110	140	171	201	232	263	293	324	354	20
21	21	52	80	111	141	172	202	233	264	294	325	355	21
22	22	53	81	112	142	173	203	234	265	295	326	356	22
23	23	54	82	113	143	174	204	235	266	296	327	357	23
24	24	55	83	114	144	175	205	236	267	297	328	358	24
25	25	56	84	115	145	176	206	237	268	298	329	359	25
26	26	57	85	116	146	177	207	238	269	299	330	360	26
27	27	58	86	117	147	178	208	239	270	300	331	361	27
28	28	59	87	118	148	179	209	240	271	301	332	362	28
29	29		88	119	149	180	210	241	272	302	333	363	29
30	30		89	120	150	181	211	242	273	303	334	364	30
31	31		90		151		212	243		304		365	31

Amount at End of Year at Compound Interest of p Installments Each of $1/p$ Deposited at End of Each pth Part of Year

$$s\overline{1|}^{(p)} = i/j_{(p)}$$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	1.0006 2461	1.0007 2864	1.0008 3264	1.0010 4058	2
3	1.0008 3287	1.0009 7159	1.0011 1029	1.0013 8761	3
4	1.0009 3701	1.0010 9309	1.0012 4913	1.0015 6115	4
6	1.0010 4116	1.0012 1459	1.0013 8799	1.0017 3471	6
12	1.0011 4532	1.0013 3610	1.0015 2686	1.0019 0829	12
13	1.0011 5333	1.0013 4545	1.0015 3754	1.0019 2164	13
26	1.0012 0140	1.0014 0154	1.0016 0164	1.0020 0176	26
52	1.0012 2544	1.0014 2958	1.0016 3369	1.0020 4183	52
365	1.0012 4606	1.0014 5363	1.0016 6118	1.0020 7618	365
∞	1.0012 4948	1.0014 5763	1.0016 6574	1.0020 8189	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	1.0012 4844	1.0014 5621	1.0015 6007	1.0016 6390	2
3	1.0016 6482	1.0019 4193	1.0020 8045	1.0022 1894	3
4	1.0018 7305	1.0021 8485	1.0023 4071	1.0024 9654	4
6	1.0020 8131	1.0024 2781	1.0026 0101	1.0027 7419	6
12	1.0022 8960	1.0026 7080	1.0028 6136	1.0030 5189	12
13	1.0023 0563	1.0026 8950	1.0028 8139	1.0030 7325	13
26	1.0024 2182	1.0028 0166	1.0030 1762	1.0032 0144	26
52	1.0024 4985	1.0028 5775	1.0030 6166	1.0032 6554	52
365	1.0024 9107	1.0029 0585	1.0031 1319	1.0033 2051	365
∞	1.0024 9792	1.0029 1384	1.0031 2175	1.0033 2964	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	1.0018 7150	1.0021 8274	1.0024 9378	1.0028 0463	2
3	1.0024 9585	1.0029 1102	1.0033 2596	1.0037 4068	3
4	1.0028 0812	1.0032 7529	1.0037 4223	1.0042 0892	4
6	1.0031 2046	1.0036 3967	1.0041 5861	1.0046 7730	6
12	1.0034 3286	1.0040 0411	1.0045 7510	1.0051 4583	12
13	1.0034 5690	1.0040 3215	1.0046 0714	1.0051 8188	13
26	1.0036 0111	1.0042 0039	1.0047 9941	1.0053 9818	26
52	1.0036 7322	1.0042 8452	1.0048 9556	1.0055 0634	52
365	1.0037 3506	1.0043 5666	1.0049 7801	1.0055 9910	365
∞	1.0037 4533	1.0043 6865	1.0049 9171	1.0056 1451	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	1.0031 1529	1.0034 2576	1.0037 3604	1.0043 6176	2
3	1.0041 5516	1.0045 6942	1.0049 8346	1.0058 1084	3
4	1.0046 7537	1.0051 4158	1.0056 0755	1.0065 3878	4
6	1.0051 9575	1.0057 1395	1.0062 3191	1.0072 6707	6
12	1.0057 1632	1.0062 8654	1.0068 5652	1.0079 9571	12
13	1.0057 5637	1.0063 3060	1.0069 0458	1.0080 5177	13
26	1.0059 9669	1.0065 9495	1.0071 9296	1.0083 8820	26
52	1.0061 1687	1.0067 2715	1.0073 3717	1.0085 5644	52
365	1.0062 1994	1.0068 4052	1.0074 6084	1.0087 0073	365
∞	1.0062 3706	1.0068 5935	1.0074 8139	1.0087 2470	∞

Logarithm of Amount at End of Year at Compound Interest of p Installments Each of $1/p$ Deposited at End of Each pth Part of Year

$$\log s^{\overline{(p)}}_{1|}$$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	0.000 2712	0.000 3163	0.000 3615	0.000 4517	2
3	0.000 3616	0.000 4218	0.000 4819	0.000 6022	3
4	0.000 4068	0.000 4745	0.000 5422	0.000 6775	4
6	0.000 4519	0.000 5272	0.000 6024	0.000 7527	6
12	0.000 4971	0.000 5799	0.000 6626	0.000 8280	12
13	0.000 5006	0.000 5839	0.000 6672	0.000 8338	13
26	0.000 5215	0.000 6083	0.000 6950	0.000 8685	26
52	0.000 5319	0.000 6204	0.000 7089	0.000 8859	52
365	0.000 5408	0.000 6309	0.000 7208	0.000 9007	365
∞	0.000 5423	0.000 6326	0.000 7228	0.000 9032	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	0.000 5419	0.000 6320	0.000 6770	0.000 7220	2
3	0.000 7224	0.000 8426	0.000 9026	0.000 9626	3
4	0.000 8127	0.000 9478	0.001 0154	0.001 0829	4
6	0.000 9030	0.001 0531	0.001 1281	0.001 2031	6
12	0.000 9932	0.001 1584	0.001 2409	0.001 3234	12
13	0.001 0002	0.001 1665	0.001 2496	0.001 3327	13
26	0.001 0505	0.001 2151	0.001 3086	0.001 3881	26
52	0.001 0627	0.001 2393	0.001 3276	0.001 4159	52
365	0.001 0805	0.001 2602	0.001 3499	0.001 4397	365
∞	0.001 0835	0.001 2636	0.001 3536	0.001 4436	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	0.000 8120	0.000 9469	0.001 0817	0.001 2163	2
3	0.001 0826	0.001 2624	0.001 4421	0.001 6215	3
4	0.001 2179	0.001 4201	0.001 6222	0.001 8241	4
6	0.001 3531	0.001 5778	0.001 8023	0.002 0266	6
12	0.001 4883	0.001 7355	0.001 9824	0.002 2291	12
13	0.001 4987	0.001 7476	0.001 9963	0.002 2447	13
26	0.001 5611	0.001 8204	0.002 0794	0.002 3381	26
52	0.001 5923	0.001 8568	0.002 1209	0.002 3848	52
365	0.001 6191	0.001 8880	0.002 1566	0.002 4249	365
∞	0.001 6235	0.001 8932	0.002 1625	0.002 4316	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	0.001 3509	0.001 4852	0.001 6195	0.001 8877	2
3	0.001 8008	0.001 9800	0.002 1589	0.002 5163	3
4	0.002 0258	0.002 2272	0.002 4285	0.002 8305	4
6	0.002 2506	0.002 4745	0.002 6981	0.003 1446	6
12	0.002 4755	0.002 7217	0.002 9676	0.003 4587	12
13	0.002 4928	0.002 7407	0.002 9883	0.003 4828	13
26	0.002 5966	0.002 8548	0.003 1127	0.003 6278	26
52	0.002 6484	0.002 9118	0.003 1749	0.003 7002	52
365	0.002 6929	0.002 9607	0.003 2282	0.003 7622	365
∞	0.002 7003	0.002 9688	0.003 2370	0.003 7727	∞

Amount at End of Year at Compound Interest of p Installments Each of $1/p$ Deposited at End of Each pth Part of Year

$$s^{(p)}_{\overline{1}|} = i/j_{(p)}$$

p	2%	2¼%	2½%	2¾%	p
2	1.0049 7525	1.0055 9371	1.0062 1142	1.0068 2837	2
3	1.0066 3733	1.0074 6292	1.0082 8761	1.0091 1141	3
4	1.0074 6856	1.0083 9839	1.0093 2677	1.0102 5422	4
6	1.0083 0125	1.0093 3444	1.0103 6665	1.0113 9789	6
12	1.0091 3389	1.0102 7107	1.0114 0725	1.0125 4243	12
13	1.0091 9796	1.0103 4314	1.0114 8732	1.0126 3051	13
26	1.0095 8243	1.0107 7565	1.0119 6786	1.0131 5908	26
52	1.0097 7470	1.0109 9195	1.0122 0819	1.0134 2343	52
365	1.0099 3960	1.0111 7746	1.0124 1431	1.0136 5016	365
∞	1.0099 6700	1.0112 0828	1.0124 4856	1.0136 8783	∞

p	3%	3½%	4%	4½%	p
2	1.0074 4458	1.0086 7475	1.0099 0195	1.0111 2621	2
3	1.0099 3431	1.0115 7748	1.0132 1713	1.0148 5328	3
4	1.0111 8072	1.0130 3094	1.0148 7744	1.0167 2026	4
6	1.0124 2816	1.0144 8578	1.0165 3957	1.0185 8953	6
12	1.0136 7662	1.0159 4203	1.0182 0351	1.0204 6109	12
13	1.0137 7270	1.0160 5410	1.0183 3158	1.0206 0515	13
26	1.0143 4929	1.0167 2674	1.0191 0023	1.0214 6980	26
52	1.0146 3757	1.0170 6316	1.0194 8470	1.0219 6231	52
365	1.0148 8501	1.0173 5172	1.0198 1447	1.0222 7330	365
∞	1.0149 2610	1.0173 9966	1.0198 6927	1.0223 3494	∞

p	5%	5½%	6%	6½%	p
2	1.0123 4754	1.0135 6596	1.0147 8151	1.0159 9419	2
3	1.0164 8597	1.0181 1522	1.0197 4104	1.0213 6348	3
4	1.0185 5942	1.0203 9495	1.0222 2688	1.0240 5523	4
6	1.0206 3570	1.0226 7810	1.0247 1676	1.0267 5172	6
12	1.0227 1479	1.0249 6465	1.0272 1070	1.0294 5294	12
13	1.0228 7484	1.0251 4068	1.0274 0270	1.0296 6093	13
26	1.0238 3548	1.0261 9729	1.0285 5526	1.0309 0941	26
52	1.0243 1602	1.0267 2586	1.0291 3186	1.0315 3404	52
365	1.0247 2822	1.0271 7928	1.0296 2648	1.0320 6987	365
∞	1.0247 9672	1.0272 5462	1.0297 0867	1.0321 5891	∞

p	7%	7½%	8%	8½%	p
2	1.0172 0402	1.0184 1103	1.0196 1524	1.0208 1667	2
3	1.0229 8254	1.0245 9826	1.0262 1065	1.0278 1974	3
4	1.0258 8002	1.0277 0129	1.0295 1904	1.0313 3332	4
6	1.0287 8298	1.0308 1059	1.0328 3456	1.0348 5492	6
12	1.0316 9143	1.0339 2617	1.0361 5721	1.0383 8455	12
13	1.0319 1538	1.0341 6609	1.0364 1309	1.0386 5642	13
26	1.0332 5978	1.0356 0640	1.0379 4927	1.0402 8845	26
52	1.0339 3242	1.0363 2705	1.0387 1794	1.0411 0511	52
365	1.0345 0947	1.0369 4530	1.0393 7739	1.0418 0577	365
∞	1.0346 0535	1.0370 4804	1.0394 8698	1.0419 2221	∞

Logarithm of Amount at End of Year at Compound Interest of p Installments Each of $1/p$ Deposited at End of Each pth Part of Year

$$\log s^{\overline{(p)}}_{1|}$$

p	2%	2¼%	2½%	2¾%	p
2	0.002 1554	0.002 4225	0.002 6892	0.002 9554	2
3	0.002 8730	0.003 2291	0.003 5844	0.003 9391	3
4	0.003 2317	0.003 6321	0.004 0318	0.004 4307	4
6	0.003 5903	0.004 0351	0.004 4790	0.004 9220	6
12	0.003 9488	0.004 4379	0.004 9261	0.005 4132	12
13	0.003 9764	0.004 4689	0.004 9604	0.005 4510	13
26	0.004 1418	0.004 6548	0.005 1667	0.005 6776	26
52	0.004 2245	0.004 7477	0.005 2698	0.005 7909	52
365	0.004 2954	0.004 8274	0.005 3583	0.005 8881	365
∞	0.004 3072	0.004 8406	0.005 3730	0.005 9042	∞

p	3%	3½%	4%	4½%	p
2	0.003 2212	0.003 7511	0.004 2792	0.004 8054	2
3	0.004 2931	0.004 9991	0.005 7025	0.006 4033	3
4	0.004 8288	0.005 6227	0.006 4136	0.007 2015	4
6	0.005 3642	0.006 2460	0.007 1243	0.007 9992	6
12	0.005 8994	0.006 8689	0.007 8346	0.008 7965	12
13	0.005 9406	0.006 9168	0.007 8892	0.008 8578	13
26	0.006 1875	0.007 2042	0.008 2169	0.009 2255	26
52	0.006 3110	0.007 3479	0.008 3807	0.009 4094	52
365	0.006 4169	0.007 4711	0.008 5212	0.009 5670	365
∞	0.006 4344	0.007 4916	0.008 5445	0.009 5932	∞

p	5%	5½%	6%	6½%	p
2	0.005 3296	0.005 8520	0.006 3725	0.006 8912	2
3	0.007 1014	0.007 7969	0.008 4899	0.009 1803	3
4	0.007 9864	0.008 7683	0.009 5473	0.010 3234	4
6	0.008 8708	0.009 7390	0.010 6038	0.011 4655	6
12	0.009 7545	0.010 7089	0.011 6595	0.012 6065	12
13	0.009 8225	0.010 7835	0.011 7407	0.012 6942	13
26	0.010 2302	0.011 2309	0.012 2276	0.013 2205	26
52	0.010 4340	0.011 4545	0.012 4710	0.013 4835	52
365	0.010 6087	0.011 6463	0.012 6798	0.013 7091	365
∞	0.010 6377	0.011 6781	0.012 7144	0.013 7466	∞

p	7%	7½%	8%	8½%	p
2	0.007 4081	0.007 9231	0.008 4363	0.008 9478	2
3	0.009 8682	0.010 5537	0.011 2365	0.011 9170	3
4	0.011 0966	0.011 8669	0.012 6344	0.013 3990	4
6	0.012 3238	0.013 1789	0.014 0307	0.014 8795	6
12	0.013 5498	0.014 4895	0.015 4257	0.016 3582	12
13	0.013 6441	0.014 5903	0.015 5329	0.016 4719	13
26	0.014 2095	0.015 1947	0.016 1761	0.017 1538	26
52	0.014 4922	0.015 4968	0.016 4976	0.017 4945	52
365	0.014 7344	0.015 7558	0.016 7732	0.017 7868	365
∞	0.014 7747	0.015 7989	0.016 8191	0.017 8353	∞

Amount of 1 at Compound Interest for Fractional Periods

$(1+i)^{1/p}$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	1.0012 4922	1.0014 5727	1.0016 6528	1.0020 8117	2
3	1.0008 3264	1.0009 7128	1.0011 0988	1.0013 8696	3
4	1.0006 2441	1.0007 2837	1.0008 3229	1.0010 4004	4
6	1.0004 1623	1.0004 8552	1.0005 5479	1.0006 9324	6
12	1.0002 0890	1.0002 4273	1.0002 7735	1.0003 4656	12
13	1.0001 9209	1.0002 2406	1.0002 5602	1.0003 1990	13
26	1.0000 9604	1.0001 1202	1.0001 2800	1.0001 5994	26
52	1.0000 4802	1.0000 5601	1.0000 6400	1.0000 7996	52
365	1.0000 0684	1.0000 0798	1.0000 0912	1.0000 1139	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	1.0024 9688	1.0029 1243	1.0031 2013	1.0033 2780	2
3	1.0016 6390	1.0019 4068	1.0020 7901	1.0022 1730	3
4	1.0012 4766	1.0014 5515	1.0015 5885	1.0016 6252	4
6	1.0008 3160	1.0009 6987	1.0010 3896	1.0011 0804	6
12	1.0004 1571	1.0004 8482	1.0005 1935	1.0005 5387	12
13	1.0003 8373	1.0004 4751	1.0004 7939	1.0005 1125	13
26	1.0001 9185	1.0002 2373	1.0002 3967	1.0002 5559	26
52	1.0000 9592	1.0001 1186	1.0001 1983	1.0001 2779	52
365	1.0000 1366	1.0000 1594	1.0000 1707	1.0000 1820	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	1.0037 4299	1.0043 6547	1.0049 8756	1.0056 0927	2
3	1.0024 9378	1.0029 0820	1.0033 2228	1.0037 3602	3
4	1.0018 6975	1.0021 8036	1.0024 9068	1.0028 0081	4
6	1.0012 4611	1.0014 5304	1.0016 5977	1.0018 6627	6
12	1.0006 2286	1.0007 2626	1.0008 2954	1.0009 3270	12
13	1.0005 7494	1.0006 7037	1.0007 6570	1.0008 6092	13
26	1.0002 8743	1.0003 3513	1.0003 8276	1.0004 3037	26
52	1.0001 4370	1.0001 6755	1.0001 9137	1.0002 1516	52
365	1.0000 2047	1.0000 2387	1.0000 2726	1.0000 3065	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	1.0062 3059	1.0068 5153	1.0074 7208	1.0087 1205	2
3	1.0041 4943	1.0045 6249	1.0049 7521	1.0057 9963	3
4	1.0031 1046	1.0034 1992	1.0037 2909	1.0043 4658	4
6	1.0020 7257	1.0022 7865	1.0024 8452	1.0028 9562	6
12	1.0010 3575	1.0011 3868	1.0012 4149	1.0014 4677	12
13	1.0009 5604	1.0010 5104	1.0011 4594	1.0013 3540	13
26	1.0004 7790	1.0005 2538	1.0005 7280	1.0006 6748	26
52	1.0002 3892	1.0002 6266	1.0002 8636	1.0003 3368	52
365	1.0000 3403	1.0000 3742	1.0000 4079	1.0000 4753	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

Logarithm of Amount of 1 at Compound Interest for Fractional Periods

$$log\ (1+i)^{1/p}$$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	0.000 5422	0.000 6324	0.000 7226	0.000 9029	2
3	0.000 3615	0.000 4216	0.000 4817	0.000 6019	3
4	0.000 2711	0.000 3162	0.000 3613	0.000 4515	4
6	0.000 1807	0.000 2108	0.000 2409	0.000 3010	6
12	0.000 0904	0.000 1054	0.000 1204	0.000 1505	12
13	0.000 0834	0.000 0973	0.000 1112	0.000 1389	13
26	0.000 0417	0.000 0486	0.000 0556	0.000 0695	26
52	0.000 0209	0.000 0243	0.000 0278	0.000 0347	52
365	0.000 0030	0.000 0035	0.000 0040	0.000 0049	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	0.001 0830	0.001 2630	0.001 3529	0.001 4428	2
3	0.000 7220	0.000 8420	0.000 9020	0.000 9619	3
4	0.000 5415	0.000 6315	0.000 6765	0.000 7214	4
6	0.000 3610	0.000 4210	0.000 4510	0.000 4809	6
12	0.000 1805	0.000 2105	0.000 2255	0.000 2405	12
13	0.000 1666	0.000 1943	0.000 2081	0.000 2220	13
26	0.000 0833	0.000 0972	0.000 1041	0.000 1110	26
52	0.000 0417	0.000 0486	0.000 0520	0.000 0555	52
365	0.000 0059	0.000 0069	0.000 0074	0.000 0079	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	0.001 6225	0.001 8918	0.002 1607	0.002 4293	2
3	0.001 0817	0.001 2612	0.001 4405	0.001 6195	3
4	0.000 8113	0.000 9459	0.001 0803	0.001 2146	4
6	0.000 5408	0.000 6306	0.000 7202	0.000 8098	6
12	0.000 2704	0.000 3153	0.000 3601	0.000 4049	12
13	0.000 2496	0.000 2910	0.000 3324	0.000 3737	13
26	0.000 1248	0.000 1455	0.000 1662	0.000 1869	26
52	0.000 0624	0.000 0728	0.000 0831	0.000 0934	52
365	0.000 0089	0.000 0104	0.000 0118	0.000 0133	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	0.002 6975	0.002 9654	0.003 2330	0.003 7672	2
3	0.001 7983	0.001 9770	0.002 1553	0.002 5115	3
4	0.001 3488	0.001 4827	0.001 6165	0.001 8836	4
6	0.000 8992	0.000 9885	0.001 0777	0.001 2557	6
12	0.000 4496	0.000 4942	0.000 5388	0.000 6279	12
13	0.000 4150	0.000 4562	0.000 4974	0.000 5796	13
26	0.000 2075	0.000 2281	0.000 2487	0.000 2898	26
52	0.000 1038	0.000 1141	0.000 1243	0.000 1449	52
365	0.000 0148	0.000 0162	0.000 0177	0.000 0206	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

Amount of 1 at Compound Interest for Fractional Periods

$$(1+i)^{1/p}$$

p	2%	2¼%	2½%	2¾%	p
2	1.0099 5050	1.0111 8742	1.0124 2284	1.0136 5675	2
3	1.0066 2271	1.0074 4444	1.0082 6484	1.0090 8390	3
4	1.0049 6293	1.0055 7815	1.0061 9225	1.0068 0522	4
6	1.0033 0589	1.0037 1532	1.0041 2392	1.0045 3168	6
12	1.0016 5158	1.0018 5594	1.0020 5984	1.0022 6328	12
13	1.0015 2444	1.0017 1305	1.0019 0124	1.0020 8900	13
26	1.0007 6193	1.0008 5616	1.0009 5017	1.0010 4396	26
52	1.0003 8089	1.0004 2799	1.0004 7497	1.0005 2184	52
365	1.0000 5426	1.0000 6096	1.0000 6765	1.0000 7433	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	3%	3½%	4%	4½%	p
2	1.0148 8916	1.0173 4950	1.0198 0390	1.0222 5242	2
3	1.0099 0163	1.0115 3314	1.0131 5941	1.0147 8046	3
4	1.0074 1707	1.0086 3745	1.0098 5341	1.0110 6499	4
6	1.0049 3862	1.0057 5004	1.0065 5820	1.0073 6312	6
12	1.0024 6627	1.0028 7090	1.0032 7374	1.0036 7481	12
13	1.0022 7634	1.0026 4977	1.0030 2153	1.0033 9165	13
26	1.0011 3752	1.0013 2401	1.0015 0963	1.0016 9439	26
52	1.0005 6860	1.0006 6179	1.0007 5453	1.0008 4684	52
365	1.0000 8099	1.0000 9425	1.0001 0746	1.0001 2060	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	5%	5½%	6%	6½%	p
2	1.0246 9508	1.0271 3193	1.0295 6302	1.0319 8837	2
3	1.0163 9636	1.0180 0713	1.0196 1282	1.0212 1347	3
4	1.0122 7224	1.0134 7518	1.0146 7385	1.0158 6828	4
6	1.0081 6485	1.0089 6340	1.0097 5880	1.0105 5107	6
12	1.0040 7412	1.0044 7170	1.0048 6755	1.0052 6169	12
13	1.0037 6014	1.0041 2701	1.0044 9228	1.0048 5597	13
26	1.0018 7831	1.0020 6138	1.0022 4363	1.0024 2504	26
52	1.0009 3871	1.0010 3016	1.0011 2118	1.0012 1179	52
365	1.0001 3368	1.0001 4670	1.0001 5965	1.0001 7255	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

p	7%	7½%	8%	8½%	p
2	1.0344 0804	1.0368 2207	1.0392 3048	1.0416 3333	2
3	1.0228 0912	1.0243 9981	1.0259 8557	1.0275 6644	3
4	1.0170 5853	1.0182 4460	1.0194 2655	1.0206 0440	4
6	1.0113 4026	1.0121 2638	1.0129 0946	1.0136 8952	6
12	1.0056 5415	1.0060 4492	1.0064 3403	1.0068 2149	12
13	1.0052 1808	1.0055 7863	1.0059 3764	1.0062 9511	13
26	1.0026 0564	1.0027 8544	1.0029 6443	1.0031 4262	26
52	1.0013 0197	1.0013 9175	1.0014 8112	1.0015 7008	52
365	1.0001 8538	1.0001 9816	1.0002 1087	1.0002 2353	365
∞	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	∞

Logarithm of Amount of 1 at Compound Interest for Fractional Periods

$$log\ (1+i)^{1/p}$$

p	2%	2¼%	2½%	2¾%	p
2	0.004 3001	0.004 8317	0.005 3619	0.005 8909	2
3	0.002 8667	0.003 2211	0.003 5746	0.003 9273	3
4	0.002 1500	0.002 4158	0.002 6810	0.002 9455	4
6	0.001 4334	0.001 6106	0.001 7873	0.001 9636	6
12	0.000 7167	0.000 8053	0.000 8937	0.000 9818	12
13	0.000 6616	0.000 7433	0.000 8249	0.000 9063	13
26	0.000 3308	0.000 3717	0.000 4125	0.000 4531	26
52	0.000 1654	0.000 1858	0.000 2062	0.000 2266	52
365	0.000 0236	0.000 0265	0.000 0294	0.000 0323	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	3%	3½%	4%	4½%	p
2	0.006 4186	0.007 4702	0.008 5167	0.009 5581	2
3	0.004 2791	0.004 9801	0.005 6778	0.006 3721	3
4	0.003 2093	0.003 7351	0.004 2583	0.004 7791	4
6	0.002 1395	0.002 4901	0.002 8389	0.003 1860	6
12	0.001 0698	0.001 2450	0.001 4194	0.001 5930	12
13	0.000 9875	0.001 1493	0.001 3103	0.001 4705	13
26	0.000 4937	0.000 5746	0.000 6551	0.000 7352	26
52	0.000 2469	0.000 2873	0.000 3276	0.000 3676	52
365	0.000 0352	0.000 0409	0.000 0467	0.000 0524	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	5%	5½%	6%	6½%	p
2	0.010 5946	0.011 6262	0.012 6529	0.013 6748	2
3	0.007 0631	0.007 7508	0.008 4353	0.009 1165	3
4	0.005 2973	0.005 8131	0.006 3265	0.006 8374	4
6	0.003 5315	0.003 8754	0.004 2176	0.004 5583	6
12	0.001 7658	0.001 9377	0.002 1088	0.002 2792	12
13	0.001 6299	0.001 7887	0.001 9466	0.002 1038	13
26	0.000 8150	0.000 8943	0.000 9733	0.001 0519	26
52	0.000 4075	0.000 4472	0.000 4867	0.000 5259	52
365	0.000 0581	0.000 0637	0.000 0693	0.000 0750	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

p	7%	7½%	8%	8½%	p
2	0.014 6919	0.015 7042	0.016 7118	0.017 7149	2
3	0.009 7946	0.010 4695	0.011 1413	0.011 8099	3
4	0.007 3459	0.007 8521	0.008 3559	0.008 8575	4
6	0.004 8973	0.005 2347	0.005 5706	0.005 9049	6
12	0.002 4486	0.002 6174	0.002 7853	0.002 9525	12
13	0.002 2603	0.002 4161	0.002 5711	0.002 7254	13
26	0.001 1301	0.001 2080	0.001 2855	0.001 3627	26
52	0.000 5651	0.000 6040	0.000 6428	0.000 6813	52
365	0.000 0805	0.000 0861	0.000 0916	0.000 0971	365
∞	0.000 0000	0.000 0000	0.000 0000	0.000 0000	∞

Nominal Rate of Interest j with Frequency of Conversion p Corresponding to Effective Rate of Interest i

$$j_{(p)} = p[(1+i)^{1/p} - 1]$$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	.0024 9844	.0029 1454	.0033 3056	.0041 6234	2
3	.0024 9792	.0029 1384	.0033 2964	.0041 6089	3
4	.0024 9766	.0029 1348	.0033 2917	.0041 6017	4
6	.0024 9740	.0029 1313	.0033 2871	.0041 5945	6
12	.0024 9714	.0029 1277	.0033 2825	.0041 5873	12
13	.0024 9712	.0029 1275	.0033 2822	.0041 5868	13
26	.0024 9700	.0029 1258	.0033 2800	.0041 5834	26
52	.0024 9694	.0029 1250	.0033 2790	.0041 5818	52
365	.0024 9689	.0029 1243	.0033 2781	.0041 5803	365
∞	.0024 9688	.0029 1242	.0033 2779	.0041 5801	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	.0049 9377	.0058 2485	.0062 4026	.0066 5559	2
3	.0049 9169	.0058 2203	.0062 3702	.0066 5191	3
4	.0049 9065	.0058 2062	.0062 3540	.0066 5006	4
6	.0049 8962	.0058 1921	.0062 3379	.0066 4822	6
12	.0049 8858	.0058 1780	.0062 3217	.0066 4638	12
13	.0049 8850	.0058 1769	.0062 3204	.0066 4624	13
26	.0049 8802	.0058 1704	.0062 3130	.0066 4539	26
52	.0049 8778	.0058 1671	.0062 3092	.0066 4497	52
365	.0049 8758	.0058 1643	.0062 3060	.0066 4460	365
∞	.0049 8754	.0058 1639	.0062 3055	.0066 4454	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	.0074 8599	.0087 3094	.0099 7512	.0112 1854	2
3	.0074 8133	.0087 2460	.0099 6685	.0112 0807	3
4	.0074 7900	.0087 2143	.0099 6272	.0112 0285	4
6	.0074 7667	.0087 1827	.0099 5859	.0111 9763	6
12	.0074 7434	.0087 1510	.0099 5446	.0111 9241	12
13	.0074 7416	.0087 1486	.0099 5414	.0111 9200	13
26	.0074 7309	.0087 1340	.0099 5224	.0111 8960	26
52	.0074 7255	.0087 1267	.0099 5128	.0111 8839	52
365	.0074 7209	.0087 1204	.0099 5047	.0111 8736	365
∞	.0074 7201	.0087 1194	.0099 5033	.0111 8719	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	.0124 6118	.0137 0306	.0149 4417	.0174 2410	2
3	.0124 4828	.0136 8746	.0149 2562	.0173 9890	3
4	.0124 4183	.0136 7966	.0149 1636	.0173 8631	4
6	.0124 3539	.0136 7188	.0149 0710	.0173 7374	6
12	.0124 2895	.0136 6410	.0148 9785	.0173 6119	12
13	.0124 2846	.0136 6350	.0148 9714	.0173 6022	13
26	.0124 2549	.0136 5991	.0148 9288	.0173 5443	26
52	.0124 2400	.0136 5812	.0148 9074	.0173 5153	52
365	.0124 2273	.0136 5658	.0148 8892	.0173 4905	365
∞	.0124 2252	.0136 5633	.0148 8861	.1073 4864	∞

Logarithm of Nominal Rate of Interest j with Frequency of Conversion p Corresponding to Effective Rate of Interest i

$log\ j_{(p)}$

p	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	p
2	7.397 6688	7.464 5705	7.522 5173	7.619 3371	2
3	7.397 5784	7.464 4650	7.522 3968	7.619 1866	3
4	7.397 5333	7.464 4123	7.522 3366	7.619 1113	4
6	7.397 4881	7.464 3596	7.522 2764	7.619 0360	6
12	7.397 4429	7.464 3069	7.522 2162	7.618 9608	12
13	7.397 4394	7.464 3029	7.522 2115	6.718 9550	13
26	7.397 4185	7.464 2785	7.522 1837	7.618 9203	26
52	7.397 4081	6.464 2663	7.522 1699	7.618 9029	52
365	7.397 3991	7.464 2559	7.522 1579	7.618 8880	365
∞	7.397 3977	7.464 2542	7.522 1559	7.618 8855	∞

p	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	p
2	7.698 4281	7.765 2848	7.795 2030	7.823 1867	2
3	7.698 2476	7.765 0743	7.794 9914	7.822 9461	3
4	7.698 1573	7.764 9690	7.794 8646	7.822 8259	4
6	7.698 0670	7.764 8637	7.794 7519	7.822 7056	6
12	7.697 9768	7.764 7584	7.794 6391	7.822 5854	12
13	7.697 9699	7.764 7503	7.794 6304	8.822 5761	13
26	7.697 9282	7.764 7018	7.794 5784	7.822 5206	26
52	7.697 9073	7.764 6775	7.794 5524	7.822 4928	52
365	7.697 8895	7.764 6566	7.794 5301	7.822 4690	365
∞	7.697 8865	7.764 6532	7.794 5264	7.822 4651	∞

p	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	p
2	7.784 2492	7.941 0611	7.998 9183	8.049 9361	2
3	7.873 9787	7.940 7456	7.998 5579	8.049 5310	3
4	7.873 8434	7.940 5929	7.998 3778	8.049 3284	4
6	7.873 7082	7.940 4302	7.998 1977	8.049 1260	6
12	7.873 5729	7.940 2726	7.998 0176	8.048 9235	12
13	7.873 5625	7.940 2604	7.998 0037	8.048 9079	13
26	7.873 5001	7.940 1877	7.997 9206	8.048 8145	26
52	7.873 4689	7.940 1513	7.997 8791	8.048 7677	52
365	7.873 4422	7.940 1201	7.997 8434	8.048 7276	365
∞	7.873 4377	7.940 1149	7.997 8375	8.048 7210	∞

p	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	p
2	8.095 5592	8.136 8175	8.174 4717	8.241 1504	2
3	8.095 1092	8.136 3228	8.173 9323	8.240 5217	3
4	8.094 8843	8.136 0754	8.173 6627	8.240 2075	4
6	8.094 6594	8.135 8282	8.173 3932	8.239 8934	6
12	8.094 4345	8.135 5811	8.173 1237	8.239 5794	12
13	8.094 4172	8.135 5621	8.173 1029	8.239 5552	13
26	8.094 3135	8.135 4480	8.172 9786	8.239 4103	26
52	8.094 2616	8.135 3909	8.172 9164	8.239 3378	52
365	8.094 2171	8.135 3420	8.172 8631	8.239 2758	365
∞	8.094 2097	8.135 3339	8.172 8542	8.239 2654	∞

Nominal Rate of Interest j with Frequency of Conversion p Corresponding to Effective Rate of Interest i

$$j_{(p)} = p[(1+i)^{1/p} - 1]$$

p	2%	2¼%	2½%	2¾%	p
2	.0199 0099	.0223 7484	.0248 4567	.0273 1349	2
3	.0198 6813	.0223 3333	.0247 9451	.0272 5170	3
4	.0198 5173	.0223 1261	.0247 6899	.0272 2087	4
6	.0198 3534	.0222 9192	.0247 4349	.0271 9009	6
12	.0198 1898	.0222 7125	.0247 1804	.0271 5936	12
13	.0198 1772	.0222 6966	.0247 1608	.0271 5699	13
26	.0198 1017	.0222 6013	.0247 0434	.0271 4283	26
52	.0198 0640	.0222 5537	.0246 9848	.0271 3575	52
365	.0198 0316	.0222 5129	.0246 9345	.0271 2968	365
∞	.0198 0263	.0222 5061	.0246 9261	.0271 2867	∞

p	3%	3½%	4%	4½%	p
2	.0297 7831	.0346 9899	.0396 0781	.0445 0483	2
3	.0297 0490	.0345 9943	.0394 7821	.0443 4138	3
4	.0296 6829	.0345 4978	.0394 1363	.0442 5996	4
6	.0296 3173	.0345 0024	.0393 4918	.0441 7874	6
12	.0295 9524	.0344 5078	.0392 8488	.0440 9771	12
13	.0295 9243	.0344 4698	.0392 7994	.0440 9149	13
26	.0295 7561	.0344 2420	.0392 5031	.0440 5417	26
52	.0295 6721	.0344 1281	.0392 3551	.0440 3552	52
365	.0295 6000	.0344 0305	.0392 2282	.0440 1954	365
∞	.0295 5880	.0344 0143	.0392 2071	.0440 1689	∞

p	5%	5½%	6%	6½%	p
2	.0493 9015	.0542 6386	.0591 2603	.0639 7674	2
3	.0491 8907	.0540 2139	.0588 3847	.0636 4042	3
4	.0490 8894	.0539 0070	.0586 9538	.0634 7314	4
6	.0489 8908	.0537 8036	.0585 5277	.0633 0644	6
12	.0488 8949	.0536 6039	.0584 1061	.0631 4033	12
13	.0488 8184	.0536 5117	.0583 9969	.0631 2758	13
26	.0488 3597	.0535 9593	.0583 3425	.0630 5113	26
52	.0488 1306	.0535 6834	.0583 0157	.0630 1295	52
365	.0487 9343	.0535 4469	.0582 7356	.0629 8023	365
∞	.0487 9016	.0535 4077	.0582 6891	.0629 7480	∞

p	7%	7½%	8%	8½%	p
2	.0688 1609	.0736 4414	.0784 6097	.0832 6667	2
3	.0684 2737	.0731 9942	.0779 5670	.0826 9933	3
4	.0682 3410	.0729 7840	.0777 0619	.0824 1758	4
6	.0680 4156	.0727 5827	.0774 5674	.0821 3712	6
12	.0678 4974	.0725 3903	.0772 0836	.0818 5792	12
13	.0678 3502	.0725 2220	.0771 8930	.0818 3649	13
26	.0677 4676	.0724 2134	.0770 7506	.0817 0811	26
52	.0677 0268	.0723 7098	.0770 1802	.0816 4401	52
365	.0676 6492	.0723 2783	.0769 6916	.0815 8910	365
∞	.0676 5865	.0723 2066	.0769 6104	.0815 7999	∞

Logarithm of Nominal Rate of Interest j with Frequency of Conversion p Corresponding to Effective Rate of Interest i

$\log j_{(p)}$

p	2%	2¼%	2½%	2¾%	p
2	8.298 8746	8.349 7517	8.395 2498	8.436 3772	2
3	8.298 1570	8.348 9535	8.394 3556	8.435 3936	3
4	8.297 7983	8.348 5504	8.393 9082	8.434 9020	4
6	8.297 4397	8.348 1474	8.393 4610	8.434 4106	6
12	8.297 0812	8.347 7446	8.393 0139	8.433 9195	12
13	8.297 0536	8.347 7136	8.392 9796	8.433 8817	13
26	8.296 8882	8.347 5278	8.292 7733	8.433 6550	26
52	8.296 8055	8.347 4348	8.392 6702	8.433 5417	52
365	8.296 7346	8.347 3551	8.392 5817	8.433 4446	365
∞	8.296 7228	8.347 3419	8.392 5670	8.433 4285	∞

p	3%	3½%	4%	4½%	p
2	8.473 9001	8.540 3169	8.597 7808	8.648 4071	2
3	8.472 8282	8.539 0689	8.596 3574	8.646 8093	3
4	8.472 2925	8.538 4454	8.595 6464	8.646 0110	4
6	8.471 7571	8.537 8221	8.594 9357	8.645 2133	6
12	8.471 2218	8.537 1991	8.594 2254	8.644 4161	12
13	8.471 1807	8.537 1512	8.594 1708	8.644 3540	13
26	8.470 9337	8.536 8638	8.593 8431	8.643 9869	26
52	8.470 8103	8.536 7201	8.593 6493	8.643 8031	52
365	8.470 7044	8.536 5969	8.593 5388	8.643 6455	365
∞	8.470 6868	8.536 5765	8.593 5155	8.643 6194	∞

p	5%	5½%	6%	6½%	p
2	8.693 6403	8.734 5107	8.771 7787	8.806 0221	2
3	8.691 8686	8.732 5658	8.769 6614	8.803 7331	3
4	8.690 9836	8.731 5945	8.768 6039	8.802 5900	4
6	8.690 0993	8.730 6237	8.767 5474	8.801 4479	6
12	8.689 2155	8.729 6538	8.766 4917	8.800 3069	12
13	8.687 1475	8.729 5792	8.766 4105	8.800 2191	13
26	8.688 7398	8.729 1318	8.765 9237	8.799 6929	26
52	8.688 5360	8.728 9082	8.765 6803	8.799 4299	52
365	8.688 3613	8.728 7164	8.765 4715	8.799 2043	365
∞	8.688 3323	8.728 6846	8.765 4369	8.799 1668	∞

p	7%	7½%	8%	8½%	p
2	8.837 6899	8.867 1382	8.894 6536	8.920 4712	2
3	8.835 2298	8.864 5076	8.891 8534	8.917 5020	3
4	8.834 0014	8.863 1944	8.890 4557	8.916 0199	4
6	8.832 7743	8.861 8824	8.889 0592	8.914 5394	6
12	8.831 5483	8.860 5718	8.887 6643	8.913 0607	12
13	8.831 4539	8.860 4710	8.887 5571	8.912 9470	13
26	8.830 8885	8.859 8665	8.886 9138	8.912 2652	26
52	8.830 6059	8.859 5645	8.886 5923	8.911 9244	52
365	8.830 3636	8.859 3055	8.886 3167	8.911 6321	365
∞	8.830 3233	8.859 2624	8.886 2709	8.911 5836	∞

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	1.0025 0000	1.0029 1667	1.0033 3333	1.0041 6667	1
2	1.0050 0625	1.0058 4184	1.0066 7778	1.0083 5069	2
3	1.0075 1877	1.0087 7555	1.0100 3337	1.0125 5216	3
4	1.0100 3756	1.0117 1781	1.0134 0015	1.0167 7112	4
5	1.0125 6266	1.0146 6865	1.0167 7815	1.0210 0767	5
6	1.0150 9406	1.0176 2810	1.0201 6741	1.0252 6187	6
7	1.0176 3180	1.0205 9618	1.0235 6797	1.0295 3379	7
8	1.0201 7588	1.0235 7292	1.0269 7986	1.0338 2352	8
9	1.0227 2632	1.0265 5834	1.0304 0313	1.0381 3111	9
10	1.0252 8313	1.0295 5247	1.0338 3780	1.0424 5666	10
11	1.0278 4634	1.0325 5533	1.0372 8393	1.0468 0023	11
12	1.0304 1596	1.0355 6695	1.0407 4154	1.0511 6190	12
13	1.0329 9200	1.0385 8736	1.0442 1068	1.0555 4174	13
14	1.0355 7448	1.0416 1657	1.0476 9138	1.0599 3983	14
15	1.0381 6341	1.0446 5462	1.0511 8369	1.0643 5625	15
16	1.0407 5882	1.0477 0153	1.0546 8763	1.0687 9106	16
17	1.0433 6072	1.0507 5732	1.0582 0326	1.0732 4436	17
18	1.0459 6912	1.0538 2203	1.0617 3060	1.0777 1621	18
19	1.0485 8404	1.0568 9568	1.0652 6971	1.0822 0670	19
20	1.0512 0550	1.0599 7829	1.0688 2060	1.0867 1589	20
21	1.0538 3352	1.0630 6990	1.0723 8334	1.0912 4387	21
22	1.0564 6810	1.0661 7052	1.0759 5795	1.0957 9072	22
23	1.0591 0927	1.0692 8018	1.0795 4448	1.1003 5652	23
24	1 0617 5704	1.0723 9891	1.0831 4296	1.1049 4134	24
25	1.0644 1144	1.0755 2674	1.0867 5344	1.1095 4526	25
26	1.0670 7247	1.0786 6370	1.0903 7595	1.1141 6836	26
27	1.0697 4015	1.0818 0980	1.0940 1053	1.1188 1073	27
28	1.0724 1450	1.0849 6508	1.0976 5724	1.1234 7244	28
29	1.0750 9553	1.0881 2956	1.1013 1609	1.1281 5358	29
30	1.0777 8327	1.0913 0327	1.1049 8715	1.1328 5422	30
31	1.0804 7773	1.0944 8624	1.1086 7044	1.1375 7444	31
32	1.0831 7892	1.0976 7849	1.1123 6601	1.1423 1434	32
33	1.0858 8687	1.1008 8005	1.1160 7389	1.1470 7398	33
34	1.0886 0159	1.1040 9095	1.1197 9414	1.1518 5346	34
35	1.0913 2309	1.1073 1122	1.1235 2679	1.1566 5284	35
36	1.0940 5140	1.1105 4088	1.1272 7187	1.1614 7223	36
37	1.0967 8653	1.1137 7995	1.1310 2945	1.1663 1170	37
38	1.0995 2850	1.1170 2848	1.1347 9955	1.1711 7133	38
39	1.1022 7732	1.1202 8648	1.1385 8221	1.1760 5121	39
40	1.1050 3301	1.1235 5398	1.1423 7748	1.1809 5142	40
41	1.1077 9559	1.1268 3101	1.1461 8541	1.1858 7206	41
42	1.1105 6508	1.1301 1760	1.1500 0603	1.1908 1319	42
43	1.1133 4149	1.1334 1378	1.1538 3938	1.1957 7491	43
44	1.1161 2485	1.1367 1957	1.1576 8551	1.2007 5731	44
45	1.1189 1516	1.1400 3500	1.1615 4446	1.2057 6046	45
46	1.1217 1245	1.1433 6010	1.1654 1628	1.2107 8446	46
47	1.1245 1673	1.1466 9490	1.1693 0100	1.2158 2940	47
48	1.1273 2802	1.1500 3943	1.1731 9867	1.2208 9536	48
49	1.1301 4634	1.1533 9371	1.1771 0933	1.2259 8242	49
50	1.1329 7171	1.1567 5778	1.1810 3303	1.2310 9068	50

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.001 0844	0.001 2648	0.001 4452	0.001 8058	1
2	0.002 1688	0.002 5297	0.002 8905	0.003 6116	2
3	0.003 2531	0.003 7945	0.004 3357	0.005 4174	3
4	0.004 3375	0.005 0594	0.005 7810	0.007 2232	4
5	0.005 4219	0.006 3242	0.007 2262	0.009 0290	5
6	0.006 5063	0.007 5891	0.008 6714	0.010 8348	6
7	0.007 5907	0.008 8539	0.010 1167	0.012 6406	7
8	0.008 6751	0.010 1188	0.011 5619	0.014 4464	8
9	0.009 7594	0.011 3836	0.013 0072	0.016 2522	9
10	0.010 8438	0.012 6485	0.014 4524	0.018 0580	10
11	0.011 9282	0.013 9133	0.015 8976	0.019 8638	11
12	0.013 0126	0.015 1782	0.017 3429	0.021 6696	12
13	0.014 0970	0.016 4430	0.018 7881	0.023 4754	13
14	0.015 1813	0.017 7079	0.020 2334	0.025 2812	14
15	0.016 2657	0.018 9727	0.021 6786	0.027 0870	15
16	0.017 3501	0.020 2376	0.023 1239	0.028 8928	16
17	0.018 4345	0.021 5024	0.024 5691	0.030 6986	17
18	0.019 5189	0.022 7673	0.026 0143	0.032 5044	18
19	0.020 6032	0.024 0321	0.027 4596	0.034 3102	19
20	0.021 6876	0.025 2970	0.028 9048	0.036 1160	20
21	0.022 7720	0.026 5618	0.030 3501	0.037 9218	21
22	0.023 8564	0.027 8267	0.031 7953	0.039 7276	22
23	0.024 9408	0.029 0915	0.033 2405	0.041 5334	23
24	0.026 0252	0.030 3564	0.034 6858	0.043 3392	24
25	0.027 1095	0.031 6212	0.036 1310	0.045 1450	25
26	0.028 1939	0.032 8861	0.037 5763	0.046 9508	26
27	0.029 2783	0.034 1509	0.039 0215	0.048 7566	27
28	0.030 3627	0.035 4158	0.040 4667	0.050 5624	28
29	0.031 4471	0.036 6806	0.041 9120	0.052 3682	29
30	0.032 5314	0.037 9455	0.043 3572	0.054 1740	30
31	0.033 6158	0.039 2103	0.044 8025	0.055 9798	31
32	0.034 7002	0.040 4752	0.046 2477	0.057 7856	32
33	0.035 7846	0.041 7400	0.047 6929	0.059 5914	33
34	0.036 8690	0.043 0049	0.049 1382	0.061 3972	34
35	0.037 9533	0.044 2697	0.050 5834	0.063 2030	35
36	0.039 0377	0.045 5345	0.052 0287	0.065 0088	36
37	0.040 1221	0.046 7994	0.053 4739	0.066 8146	37
38	0.041 2065	0.048 0642	0.054 9191	0.068 6204	38
39	0.042 2909	0.049 3291	0.056 3644	0.070 4262	39
40	0.043 3753	0.050 5939	0.057 8096	0.072 2320	40
41	0.044 4596	0.051 8588	0.059 2549	0.074 0378	41
42	0.045 5440	0.053 1236	0.060 7001	0.075 8436	42
43	0.046 6284	0.054 3885	0.062 1454	0.077 6494	43
44	0.047 7128	0.055 6533	0.063 5906	0.079 4552	44
45	0.048 7972	0.056 9182	0.065 0358	0.081 2610	45
46	0.049 8815	0.058 1830	0.066 4811	0.083 0668	46
47	0.050 9659	0.059 4479	0.067 9263	0.084 8726	47
48	0.052 0503	0.060 7127	0.069 3716	0.086 6784	48
49	0.053 1347	0.061 9776	0.070 8168	0.088 4842	49
50	0.054 2191	0.063 2424	0.072 2620	0.090 2900	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	1.1358 0414	1.1601 3165	1.1849 6981	1.2362 2002	51
52	1.1386 4365	1.1635 1537	1.1889 1971	1.2413 7114	52
53	1.1414 9026	1.1669 0896	1.1928 8277	1.2465 4352	53
54	1.1443 4398	1.1703 1244	1.1968 5905	1.2517 3745	54
55	1.1472 0484	1.1737 2585	1.2008 4858	1.2569 5302	55
56	1.1500 7285	1.1771 4922	1.2048 5141	1.2621 9033	56
57	1.1529 4804	1.1805 8257	1.2088 6758	1.2674 4946	57
58	1.1558 3041	1.1840 2594	1.2128 9714	1.2727 3050	58
59	1.1587 1998	1.1874 7935	1.2169 4013	1.2780 3354	59
60	1.1616 1678	1.1909 4283	1.2209 9659	1.2833 5868	60
61	1.1645 2082	1.1944 1641	1.2250 6658	1.2887 0601	61
62	1.1674 3213	1.1979 0013	1.2291 5014	1.2940 7561	62
63	1.1703 5071	1.2013 9400	1.2332 4730	1.2994 6760	63
64	1.1732 7658	1.2048 9807	1.2373 5813	1.3048 8204	64
65	1.1762 0977	1.2084 1235	1.2414 8266	1.3103 1905	65
66	1.1791 5030	1.2119 3689	1.2456 2093	1.3157 7872	66
67	1.1820 9817	1.2154 7171	1.2497 7300	1.3212 6113	67
68	1.1850 5342	1.2190 1683	1.2539 3891	1.3267 6638	68
69	1.1880 1605	1.2225 7230	1.2581 1871	1.3322 9458	69
70	1.1909 8609	1.2261 3813	1.2623 1244	1.3378 4580	70
71	1.1939 6356	1.2297 1437	1.2665 2015	1.3434 2016	71
72	1.1969 4847	1.2333 0104	1.2707 4188	1.3490 1774	72
73	1.1999 4084	1.2368 9816	1.2749 7769	1.3546 3865	73
74	1.2029 4069	1.2405 0578	1.2792 2761	1.3602 8298	74
75	1.2059 4804	1.2441 2393	1.2834 9170	1.3659 5082	75
76	1.2089 6291	1.2477 5262	1.2877 7001	1.3716 4229	76
77	1.2119 8532	1.2513 9190	1.2920 6258	1.3773 5746	77
78	1.2150 1528	1.2550 4179	1.2963 6945	1.3830 9645	78
79	1.2180 5282	1.2587 0233	1.3006 9068	1.3888 5935	79
80	1.2210 9795	1.2623 7355	1.3050 2632	1.3946 4627	80
81	1.2241 5070	1.2660 5547	1.3093 7641	1.4004 5729	81
82	1.2272 1108	1.2697 4813	1.3137 4099	1.4062 9253	82
83	1.2302 7910	1.2734 5156	1.3181 2013	1.4121 5209	83
84	1.2333 5480	1.2771 6580	1.3225 1386	1.4180 3605	84
85	1.2364 3819	1.2808 9086	1.3269 2224	1.4239 4454	85
86	1.2395 2928	1.2846 2680	1.3313 4532	1.4298 7764	86
87	1.2426 2811	1.2883 7362	1.3357 8314	1.4358 3546	87
88	1.2457 3468	1.2921 3138	1.3402 3575	1.4418 1811	88
89	1.2488 4901	1.2959 0010	1.3447 0320	1.4478 2568	89
90	1.2519 7114	1.2996 7980	1.3491 8554	1.4538 5829	90
91	1.2551 0106	1.3034 7054	1.3536 8283	1.4599 1603	91
92	1.2582 3882	1.3072 7233	1.3581 9510	1.4659 9902	92
93	1.2613 8441	1.3110 8520	1.3627 2242	1.4721 0735	93
94	1.2645 3787	1.3149 0920	1.3672 6483	1.4782 4113	94
95	1.2676 9922	1.3187 4435	1.3718 2238	1.4844 0047	95
96	1.2708 6847	1.3225 9069	1.3763 9512	1.4905 8547	96
97	1.2740 4564	1.3264 4825	1.3809 8310	1.4967 9624	97
98	1.2772 3075	1.3303 1706	1.3855 8638	1.5030 3289	98
99	1.2804 2383	1.3341 9715	1.3902 0500	1.5092 9553	99
100	1.2836 2489	1.3380 8856	1.3948 3902	1.5155 8426	100

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	0.055 3034	0.064 5073	0.073 7073	0.092 0958	51
52	0.056 3878	0.065 7721	0.075 1525	0.093 9016	52
53	0.057 4722	0.067 0370	0.076 5978	0.095 7074	53
54	0.058 5566	0.068 3018	0.078 0430	0.097 5132	54
55	0.059 6410	0.069 5667	0.079 4882	0.099 3190	55
56	0.060 7254	0.070 8315	0.080 9335	0.101 1249	56
57	0.061 8097	0.072 0964	0.082 3787	0.102 9307	57
58	0.062 8941	0.073 3612	0.083 8240	0.104 7365	58
59	0.063 9785	0.074 6261	0.085 2692	0.106 5423	59
60	0.065 0629	0.075 8909	0.086 7145	0.108 3481	60
61	0.066 1473	0.077 1558	0.088 1597	0.110 1539	61
62	0.067 2316	0.078 4206	0.089 6049	0.111 9597	62
63	0.068 3160	0.079 6855	0.091 0502	0.113 7655	63
64	0.069 4004	0.080 9503	0.092 4954	0.115 5713	64
65	0.070 4848	0.082 2152	0.093 9407	0.117 3771	65
66	0.071 5692	0.083 4800	0.095 3859	0.119 1829	66
67	0.072 6535	0.084 7449	0.096 8311	0.120 9887	67
68	0.073 7379	0.086 0097	0.098 2764	0.122 7945	68
69	0.074 8223	0.087 2746	0.099 7216	0.124 6003	69
70	0.075 9067	0.088 5394	0.101 1669	0.126 4061	70
71	0.076 9911	0.089 8043	0.102 6121	0.128 2119	71
72	0.078 0755	0.091 0691	0.104 0573	0.130 0177	72
73	0.079 1598	0.092 3339	0.105 5026	0.131 8235	73
74	0.080 2442	0.093 5988	0.106 9478	0.133 6293	74
75	0.081 3286	0.094 8636	0.108 3931	0.135 4351	75
76	0.082 4130	0.096 1285	0.109 8383	0.137 2409	76
77	0.083 4974	0.097 3933	0.111 2835	0.139 0467	77
78	0.084 5817	0.098 6582	0.112 7288	0.140 8525	78
79	0.085 6661	0.099 9230	0.114 1740	0.142 6583	79
80	0.086 7505	0.101 1879	0.115 6193	0.144 4641	80
81	0.087 8349	0.102 4527	0.117 0645	0.146 2699	81
82	0.088 9193	0.103 7176	0.118 5098	0.148 0757	82
83	0.090 0036	0.104 9824	0.119 9550	0.149 8815	83
84	0.091 0880	0.106 2473	0.121 4002	0.151 6873	84
85	0.092 1724	0.107 5121	0.122 8455	0.153 4931	85
86	0.093 2568	0.108 7770	0.124 2907	0.155 2989	86
87	0.094 3412	0.110 0418	0.125 7360	0.157 1047	87
88	0.095 4256	0.111 3067	0.127 1812	0.158 9105	88
89	0.096 5099	0.112 5715	0.128 6264	0.160 7163	89
90	0.097 5943	0.113 8364	0.130 0717	0.162 5221	90
91	0.098 6787	0.115 1012	0.131 5169	0.164 3279	91
92	0.099 7631	0.116 3661	0.132 9622	0.166 1337	92
93	0.100 8475	0.117 6309	0.134 4074	0.167 9395	93
94	0.101 9318	0.118 8958	0.135 8526	0.169 7453	94
95	0.103 0162	0.120 1606	0.137 2979	0.171 5511	95
96	0.104 1006	0.121 4255	0.138 7431	0.173 3569	96
97	0.105 1850	0.122 6903	0.140 1884	0.175 1627	97
98	0.106 2694	0.123 9552	0.141 6336	0.176 9685	98
99	0.107 3537	0.125 2200	0.143 0788	0.178 7743	99
100	0.108 4381	0.126 4849	0.144 5241	0.180 5801	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	1.2868 3395	1.3419 9131	1.3994 8848	1.5218 9919	101
102	1.2900 5104	1.3459 0546	1.4041 5344	1.5282 4044	102
103	1.2932 7616	1.3498 3101	1.4088 3395	1.5346 0811	103
104	1.2965 0935	1.3537 6802	1.4135 3007	1.5410 0231	104
105	1.2997 5063	1.3577 1651	1.4182 4183	1.5474 2315	105
106	1.3030 0000	1.3616 7652	1.4229 6931	1.5538 7075	106
107	1.3062 5750	1.3656 4807	1.4277 1254	1.5603 4521	107
108	1.3095 2315	1.3696 3121	1.4324 7158	1.5668 4665	108
109	1.3127 9696	1.3736 2597	1.4372 4649	1.5733 7518	109
110	1.3160 7895	1.3776 3238	1.4420 3731	1.5799 3091	110
111	1.3193 6915	1.3816 5047	1.4468 4410	1.5865 1395	111
112	1.3226 6757	1.3856 8029	1.4516 6691	1.5931 2443	112
113	1.3259 7424	1.3897 2186	1.4565 0580	1.5997 6245	113
114	1.3292 8917	1.3937 7521	1.4613 6082	1.6064 2812	114
115	1.3326 1240	1.3978 4039	1.4662 3202	1.6131 2157	115
116	1.3359 4393	1.4019 1742	1.4711 1946	1.6198 4291	116
117	1.3392 8379	1.4060 0635	1.4760 2320	1.6265 9226	117
118	1.3426 3200	1.4101 0720	1.4809 4327	1.6333 6973	118
119	1.3459 8858	1.4142 2001	1.4858 7979	1.6401 7543	119
120	1.3493 5355	1.4183 4482	1.4908 3268	1.6470 0950	120
121	1.3527 2693	1.4224 8166	1.4958 0212	1.6538 7204	121
122	1.3561 0875	1.4266 3057	1.5007 8813	1.6607 6317	122
123	1.3594 9902	1.4307 9157	1.5057 9076	1.6676 8302	123
124	1.3628 9777	1.4349 6471	1.5108 1006	1.6746 3170	124
125	1.3663 0501	1.4391 5003	1.5158 4609	1.6816 0933	125
126	1.3697 2077	1.4433 4755	1.5208 9892	1.6886 1603	126
127	1.3731 4508	1.4475 5731	1.5259 6858	1.6956 5193	127
128	1.3765 7794	1.4517 7935	1.5310 5514	1.7027 1715	128
129	1.3800 1938	1.4560 1371	1.5361 5866	1.7098 1181	129
130	1.3834 6943	1.4602 6042	1.5412 7919	1.7169 3602	130
131	1.3869 2811	1.4645 1951	1.5464 1678	1.7240 8992	131
132	1.3903 9543	1.4687 9103	1.5515 7151	1.7312 7363	132
133	1.3938 7142	1.4730 7500	1.5567 4341	1.7384 8727	133
134	1.3973 5609	1.4773 7147	1.5619 3256	1.7457 3097	134
135	1.4008 4948	1.4816 8047	1.5671 3900	1.7530 0485	135
136	1.4043 5161	1.4860 0204	1.5723 6279	1.7603 0903	136
137	1.4078 6249	1.4903 3621	1.5776 0400	1.7676 4365	137
138	1.4113 8214	1.4946 8302	1.5828 6268	1.7750 0884	138
139	1.4149 1060	1.4990 4252	1.5881 3889	1.7824 0471	139
140	1.4184 4787	1.5034 1472	1.5934 3269	1.7898 3139	140
141	1.4219 9399	1.5077 9968	1.5987 4413	1.7972 8902	141
142	1.4255 4898	1.5121 9743	1.6040 7328	1.8047 7773	142
143	1.4291 1285	1.5166 0801	1.6094 2019	1.8122 9763	143
144	1.4326 8563	1.5210 3145	1.6147 8492	1.8198 4887	144
145	1.4362 6735	1.5254 6779	1.6201 6754	1.8274 3158	145
146	1.4398 5802	1.5299 1707	1.6255 6810	1.8350 4588	146
147	1.4434 5766	1.5343 7933	1.6309 8666	1.8426 9190	147
148	1.4470 6631	1.5388 5460	1.6364 2328	1.8503 6978	148
149	1.4506 8397	1.5433 4293	1.6418 7802	1.8580 7966	149
150	1.4543 1068	1.5478 4434	1.6473 5095	1.8658 2166	150

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	0.109 5225	0.127 7497	0.145 9693	0.182 3859	101
102	0.110 6069	0.129 0146	0.147 4146	0.184 1917	102
103	0.111 6913	0.130 2794	0.148 8598	0.185 9975	103
104	0.112 7757	0.131 5443	0.150 3051	0.187 8033	104
105	0.113 8600	0.132 8091	0.151 7503	0.189 6091	105
106	0.114 9444	0.134 0740	0.153 1955	0.191 4149	106
107	0.116 0288	0.135 3388	0.154 6408	0.193 2207	107
108	0.117 1132	0.136 6036	0.156 0860	0.195 0265	108
109	0.118 1976	0.137 8685	0.157 5313	0.196 8323	109
110	0.119 2819	0.139 1333	0.158 9765	0.198 6381	110
111	0.120 3663	0.140 3982	0.160 4217	0.200 4439	111
112	0.121 4507	0.141 6630	0.161 8670	0.202 2497	112
113	0.122 5351	0.142 9279	0.163 3122	0.204 0555	113
114	0.123 6195	0.144 1927	0.164 7575	0.205 8613	114
115	0.124 7038	0.145 4576	0.166 2027	0.207 6671	115
116	0.125 7882	0.146 7224	0.167 6479	0.209 4729	116
117	0.126 8726	0.147 9873	0.169 0932	0.211 2787	117
118	0.127 9570	0.149 2521	0.170 5384	0.213 0845	118
119	0.129 0414	0.150 5170	0.171 9837	0.214 8903	119
120	0.130 1258	0.151 7818	0.173 4289	0.216 6961	120
121	0.131 2101	0.153 0467	0.174 8741	0.218 5019	121
122	0.132 2945	0.154 3115	0.176 3194	0.220 3077	122
123	0.133 3789	0.155 5764	0.177 7646	0.222 1135	123
124	0.134 4633	0.156 8412	0.179 2099	0.223 9193	124
125	0.135 5477	0.158 1061	0.180 6551	0.225 7251	125
126	0.136 6320	0.159 3709	0.182 1004	0.227 5309	126
127	0.137 7164	0.160 6358	0.183 5456	0.229 3367	127
128	0.138 8008	0.161 9006	0.184 9908	0.231 1425	128
129	0.139 8852	0.163 1655	0.186 4361	0.232 9483	129
130	0.140 9696	0.164 4303	0.187 8813	0.234 7541	130
131	0.142 0540	0.165 6952	0.189 3266	0.236 5599	131
132	0.143 1383	0.166 9600	0.190 7718	0.238 3657	132
133	0.144 2227	0.168 2249	0.192 2170	0.240 1715	133
134	0.145 3071	0.169 4897	0.193 6623	0.241 9773	134
135	0.146 3915	0.170 7546	0.195 1075	0.243 7831	135
136	0.147 4758	0.172 0194	0.196 5528	0.245 5889	136
137	0.148 5602	0.173 2843	0.197 9980	0.247 3947	137
138	0.149 6446	0.174 5491	0.199 4432	0.249 2005	138
139	0.150 7290	0.175 8140	0.200 8885	0.251 0063	139
140	0.151 8134	0.177 0788	0.202 3337	0.252 8121	140
141	0.152 8978	0.178 3437	0.203 7790	0.254 6179	141
142	0.153 9821	0.179 6085	0.205 2242	0.256 4237	142
143	0.155 0665	0.180 8733	0.206 6694	0.258 2295	143
144	0.156 1509	0.182 1382	0.208 1147	0.260 0353	144
145	0.157 2353	0.183 4030	0.209 5599	0.261 8411	145
146	0.158 3197	0.184 6679	0.211 0052	0.263 6469	146
147	0.159 4041	0.185 9327	0.212 4504	0.265 4527	147
148	0.160 4884	0.187 1976	0.213 8957	0.267 2585	148
149	0.161 5728	0.188 4624	0.215 3409	0.269 0643	149
150	0.162 6572	0.189 7273	0.216 7861	0.270 8701	150

Amount of 1 at Compound Interest

$(1+i)^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	1.4579 4646	1.5523 5889	1.6528 4212	1.8735 9591	151
152	1.4615 9132	1.5568 8660	1.6583 5160	1.8814 0256	152
153	1.4652 4530	1.5614 2752	1.6638 7943	1.8892 4174	153
154	1.4689 0842	1.5659 8169	1.6694 2570	1.8971 1358	154
155	1.4725 8069	1.5705 4913	1.6749 9045	1.9050 1822	155
156	1.4762 6214	1.5751 2990	1.6805 7375	1.9129 5580	156
157	1.4799 5279	1.5797 2403	1.6861 7566	1.9209 2645	157
158	1.4836 5268	1.5843 3156	1.6917 9625	1.9289 3031	158
159	1.4873 6181	1.5889 5253	1.6974 3557	1.9369 6752	159
160	1.4910 8021	1.5935 8697	1.7030 9369	1.9450 3821	160
161	1.4948 0791	1.5982 3493	1.7087 7067	1.9531 4254	161
162	1.4985 4493	1.6028 9645	1.7144 6657	1.9612 8063	162
163	1.5022 9129	1.6075 7157	1.7201 8146	1.9694 5264	163
164	1.5060 4702	1.6122 6032	1.7259 1540	1.9776 5869	164
165	1.5098 1214	1.6169 6274	1.7316 6845	1.9858 9893	165
166	1.5135 8667	1.6216 7888	1.7374 4068	1.9941 7351	166
167	1.5173 7064	1.6264 0878	1.7432 3215	2.0024 8257	167
168	1.5211 6406	1.6311 5247	1.7490 4292	2.0108 2625	168
169	1.5249 6697	1.6359 1000	1.7548 7306	2.0192 0469	169
170	1.5287 7939	1.6406 8140	1.7607 2264	2.0276 1804	170
171	1.5326 0134	1.6454 6672	1.7665 9172	2.0360 6645	171
172	1.5364 3284	1.6502 6600	1.7724 8035	2.0445 5006	172
173	1.5402 7393	1.6550 7928	1.7783 8862	2.0530 6902	173
174	1.5441 2461	1.6599 0659	1.7843 1658	2.0616 2347	174
175	1.5479 8492	1.6647 4799	1.7902 6431	2.0702 1357	175
176	1.5518 5488	1.6696 0350	1.7962 3185	2.0788 3946	176
177	1.5557 3452	1.6744 7318	1.8022 1929	2.0875 0129	177
178	1.5596 2386	1.6793 5706	1.8082 2669	2.0961 9921	178
179	1.5635 2292	1.6842 5518	1.8142 5411	2.1049 3338	179
180	1.5674 3172	1.6891 6760	1.8203 0163	2.1137 0393	180
181	1.5713 5030	1.6940 9433	1.8263 6930	2.1225 1103	181
182	1.5752 7868	1.6990 3544	1.8324 5720	2.1313 5483	182
183	1.5792 1688	1.7039 9096	1.8385 6539	2.1402 3547	183
184	1.5831 6492	1.7089 6094	1.8446 9394	2.1491 5312	184
185	1.5871 2283	1.7139 4541	1.8508 4292	2.1581 0793	185
186	1.5910 9064	1.7189 4441	1.8570 1240	2.1671 0004	186
187	1.5950 6836	1.7239 5800	1.8632 0244	2.1761 2963	187
188	1.5990 5604	1.7289 8621	1.8694 1311	2.1851 9683	188
189	1.6030 5368	1.7340 2909	1.8756 4449	2.1943 0182	189
190	1.6070 6131	1.7390 8667	1.8818 9664	2.2034 4474	190
191	1.6110 7896	1.7441 5901	1.8881 6963	2.2126 2576	191
192	1.6151 0666	1.7492 4614	1.8944 6352	2.2218 4504	192
193	1.6191 4443	1.7543 4811	1.9007 7840	2.2311 0272	193
194	1.6231 9229	1.7594 6496	1.9071 1433	2.2403 9899	194
195	1.6272 5027	1.7645 9673	1.9134 7138	2.2497 3398	195
196	1.6313 1839	1.7697 4347	1.9198 4962	2.2591 0787	196
197	1.6353 9669	1.7749 0522	1.9262 4912	2.2685 2082	197
198	1.6394 8518	1.7800 8203	1.9326 6995	2.2779 7299	198
199	1.6435 8390	1.7852 7393	1.9391 1218	2.2874 6455	199
200	1.6476 9285	1.7904 8098	1.9455 7589	2.2969 9565	200

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	0.163 7416	0.190 9921	0.218 2314	0.272 6759	151
152	0.164 8260	0.192 2570	0.219 6766	0.274 4817	152
153	0.165 9103	0.193 5218	0.221 1218	0.276 2875	153
154	0.166 9947	0.194 7867	0.222 5671	0.278 0933	154
155	0.168 0791	0.196 0515	0.224 0123	0.279 8991	155
156	0.169 1635	0.197 3164	0.225 4576	0.281 7049	156
157	0.170 2479	0.198 5812	0.226 9028	0.283 5107	157
158	0.171 3322	0.199 8461	0.228 3481	0.285 3165	158
159	0.172 4166	0.201 1109	0.229 7933	0.287 1223	159
160	0.173 5010	0.202 3758	0.231 2385	0.288 9281	160
161	0.174 5854	0.203 6406	0.232 6838	0.290 7339	161
162	0.175 6698	0.204 9055	0.234 1290	0.292 5397	162
163	0.176 7542	0.206 1703	0.235 5743	0.294 3455	163
164	0.177 8385	0.207 4352	0.237 0195	0.296 1513	164
165	0.178 9229	0.208 7000	0.238 4647	0.297 9571	165
166	0.180 0073	0.209 9649	0.239 9100	0.299 7629	166
167	0.181 0917	0.211 2297	0.241 3552	0.301 5688	167
168	0.182 1761	0.212 4946	0.242 8005	0.303 3746	168
169	0.183 2604	0.213 7594	0.244 2457	0.305 1804	169
170	0.184 3448	0.215 0243	0.245 6910	0.306 9862	170
171	0.185 4292	0.216 2891	0.247 1362	0.308 7920	171
172	0.186 5136	0.217 5540	0.248 5814	0.310 5978	172
173	0.187 5980	0.218 8188	0.250 0267	0.312 4036	173
174	0.188 6823	0.220 0837	0.251 4720	0.314 2094	174
175	0.189 7667	0.221 3485	0.252 9172	0.316 0152	175
176	0.190 8511	0.222 6134	0.254 3624	0.317 8210	176
177	0.191 9355	0.223 8782	0.255 8076	0.319 6268	177
178	0.193 0199	0.225 1431	0.257 2529	0.321 4326	178
179	0.194 1043	0.226 4079	0.258 6981	0.323 2384	179
180	0.195 1886	0.227 6727	0.260 1434	0.325 0442	180
181	0.196 2730	0.228 9376	0.261 5886	0.326 8500	181
182	0.197 3574	0.230 2024	0.263 0338	0.328 6558	182
183	0.198 4418	0.231 4673	0.264 4791	0.330 4616	183
184	0.199 5262	0.232 7321	0.265 9243	0.332 2674	184
185	0.200 6105	0.233 9970	0.267 3696	0.334 0732	185
186	0.201 6949	0.235 2618	0.268 8148	0.335 8790	186
187	0.202 7793	0.236 5267	0.270 2600	0.337 6848	187
188	0.203 8637	0.237 7915	0.271 7053	0.339 4906	188
189	0.204 9481	0.239 0564	0.273 1505	0.341 2964	189
190	0.206 0324	0.240 3212	0.274 5958	0.343 1022	190
191	0.207 1168	0.241 5861	0.276 0410	0.344 9080	191
192	0.208 2012	0.242 8509	0.277 4863	0.346 7138	192
193	0.209 2856	0.244 1158	0.278 9315	0.348 5196	193
194	0.210 3700	0.245 3806	0.280 3767	0.350 3254	194
195	0.211 4544	0.246 6455	0.281 8220	0.352 1312	195
196	0.212 5387	0.247 9103	0.283 2672	0.353 9370	196
197	0.213 6231	0.249 1752	0.284 7125	0.355 7428	197
198	0.214 7075	0.250 4400	0.286 1577	0.357 5486	198
199	0.215 7919	0.251 7049	0.287 6029	0.359 3544	199
200	0.216 8763	0.252 9697	0.289 0482	0.361 1602	200

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	1.0050 0000	1.0058 3333	1.0062 5000	1.0066 6667	1
2	1.0100 2500	1.0117 0069	1.0125 3906	1.0133 7778	2
3	1.0150 7513	1.0176 0228	1.0188 6743	1.0201 3363	3
4	1.0201 5050	1.0235 3830	1.0252 3535	1.0269 3452	4
5	1.0252 5125	1.0295 0894	1.0316 4307	1.0337 8075	5
6	1.0303 7751	1.0355 1440	1.0380 9084	1.0406 7262	6
7	1.0355 2940	1.0415 5490	1.0445 7891	1.0476 1044	7
8	1.0407 0704	1.0476 3064	1.0511 0753	1.0545 9451	8
9	1.0459 1058	1.0537 4182	1.0576 7695	1.0616 2514	9
10	1.0511 4013	1.0598 8865	1.0642 8743	1.0687 0264	10
11	1.0563 9583	1.0660 7133	1.0709 3923	1.0758 2732	11
12	1.0616 7781	1.0722 9008	1.0776 3260	1.0829 9951	12
13	1.0669 8620	1.0785 4511	1.0843 6780	1.0902 1950	13
14	1.0723 2113	1.0848 3662	1.0911 4510	1.0974 8763	14
15	1.0776 8274	1.0911 6483	1.0979 6476	1.1048 0422	15
16	1.0830 7115	1.0975 2996	1.1048 2704	1.1121 6958	16
17	1.0884 8651	1.1039 3222	1.1117 3221	1.1195 8404	17
18	1.0939 2894	1.1103 7182	1.1186 8053	1.1270 4794	18
19	1.0993 9858	1.1168 4899	1.1256 7229	1.1345 6159	19
20	1.1048 9558	1.1233 6395	1.1327 0774	1.1421 2533	20
21	1.1104 2006	1.1299 1690	1.1397 8716	1.1497 3950	21
22	1.1159 7216	1.1365 0808	1.1469 1083	1.1574 0443	22
23	1.1215 5202	1.1431 3771	1.1540 7902	1.1651 2046	23
24	1.1271 5978	1.1498 0602	1.1612 9202	1.1728 8793	24
25	1.1327 9558	1.1565 1322	1.1685 5009	1.1807 0718	25
26	1.1384 5955	1.1632 5955	1.1758 5353	1.1885 7857	26
27	1.1441 5185	1.1700 4523	1.1832 0262	1.1965 0242	27
28	1.1498 7261	1.1768 7049	1.1905 9763	1.2044 7911	28
29	1.1556 2197	1.1837 3557	1.1980 3887	1.2125 0897	29
30	1.1614 0008	1.1906 4069	1.2055 2661	1.2205 9236	30
31	1.1672 0708	1.1975 8610	1.2130 6115	1.2287 2964	31
32	1.1730 4312	1.2045 7202	1.2206 4278	1.2369 2117	32
33	1.1789 0833	1.2115 9869	1.2282 7180	1.2451 6731	33
34	1.1848 0288	1.2186 6634	1.2359 4850	1.2534 6843	34
35	1.1907 2689	1.2257 7523	1.2436 7318	1.2618 2489	35
36	1.1966 8052	1.2329 2559	1.2514 4614	1.2702 3705	36
37	1.2026 6393	1.2401 1765	1.2592 6767	1.2787 0530	37
38	1.2086 7725	1.2473 5167	1.2671 3810	1.2872 3000	38
39	1.2147 2063	1.2546 2789	1.2750 5771	1.2958 1153	39
40	1.2207 9424	1.2619 4655	1.2830 2682	1.3044 5028	40
41	1.2268 9821	1.2693 0791	1.2910 4574	1.3131 4661	41
42	1.2330 3270	1.2767 1220	1.2991 1477	1.3219 0092	42
43	1.2391 9786	1.2841 5969	1.3072 3424	1.3307 1360	43
44	1.2453 9385	1.2916 5062	1.3154 0446	1.3395 8502	44
45	1.2516 2082	1.2991 8525	1.3236 2573	1.3485 1559	45
46	1.2578 7892	1.3067 6383	1.3318 9839	1.3575 0569	46
47	1.2641 6832	1.3143 8662	1.3402 2276	1.3665 5573	47
48	1.2704 8916	1.3220 5388	1.3485 9915	1.3756 6610	48
49	1.2768 4161	1.3297 6586	1.3570 2790	1.3848 3721	49
50	1.2832 2581	1.3375 2283	1.3655 0932	1.3940 6946	50

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	0.002 1661	0.002 5260	0.002 7059	0.002 8857	1
2	0.004 3321	0.005 0520	0.005 4118	0.005 7714	2
3	0.006 4982	0.007 5781	0.008 1177	0.008 6571	3
4	0.008 6642	0.010 1041	0.010 8236	0.011 5428	4
5	0.010 8303	0.012 6301	0.013 5295	0.014 4284	5
6	0.012 9964	0.015 1561	0.016 2354	0.017 3141	6
7	0.015 1624	0.017 6822	0.018 9413	0.020 1998	7
8	0.017 3285	0.020 2082	0.021 6471	0.023 0855	8
9	0.019 4946	0.022 7342	0.024 3530	0.025 9712	9
10	0.021 6606	0.025 2602	0.027 0589	0.028 8569	10
11	0.023 8267	0.027 7863	0.029 7648	0.031 7426	11
12	0.025 9927	0.030 3123	0.032 4707	0.034 6283	12
13	0.028 1588	0.032 8383	0.035 1766	0.037 5139	13
14	0.030 3249	0.035 3643	0.037 8825	0.040 3996	14
15	0.032 4909	0.037 8904	0.040 5884	0.043 2853	15
16	0.034 6570	0.040 4164	0.043 2943	0.046 1710	16
17	0.036 8230	0.042 9424	0.046 0002	0.049 0567	17
18	0.038 9891	0.045 4684	0.048 7061	0.051 9424	18
19	0.041 1552	0.047 9945	0.051 4120	0.054 8281	19
20	0.043 3212	0.050 5205	0.054 1179	0.057 7138	20
21	0.045 4873	0.053 0465	0.056 8238	0.060 5995	21
22	0.047 6534	0.055 5725	0.059 5297	0.063 4851	22
23	0.049 8194	0.058 0986	0.062 2355	0.066 3708	23
24	0.051 9855	0.060 6246	0.064 9414	0.069 2565	24
25	0.054 1515	0.063 1506	0.067 6473	0.072 1422	25
26	0.056 3176	0.065 6766	0.070 3532	0.075 0279	26
27	0.058 4837	0.068 2027	0.073 0591	0.077 9136	27
28	0.060 6497	0.070 7287	0.075 7650	0.080 7993	28
29	0.062 8158	0.073 2547	0.078 4709	0.083 6850	29
30	0.064 9819	0.075 7807	0.081 1768	0.086 5706	30
31	0.067 1479	0.078 3067	0.083 8827	0.089 4563	31
32	0.069 3140	0.080 8328	0.086 5886	0.092 3420	32
33	0.071 4800	0.083 3588	0.089 2945	0.095 2277	33
34	0.073 6461	0.085 8848	0.092 0004	0.098 1134	34
35	0.075 8122	0.088 4108	0.094 7063	0.100 9991	35
36	0.077 9782	0.090 9369	0.097 4122	0.103 8848	36
37	0.080 1443	0.093 4629	0.100 1181	0.106 7705	37
38	0.082 3103	0.095 9889	0.102 8239	0.109 6562	38
39	0.084 4764	0.098 5149	0.105 5298	0.112 5418	39
40	0.086 6425	0.101 0410	0.108 2357	0.115 4275	40
41	0.088 8085	0.103 5670	0.110 9416	0.118 3132	41
42	0.090 9746	0.106 0930	0.113 6475	0.121 1989	42
43	0.093 1407	0.108 6190	0.116 3534	0.124 0846	43
44	0.095 3067	0.111 1451	0.119 0593	0.126 9703	44
45	0.097 4728	0.113 6711	0.121 7652	0.129 8560	45
46	0.099 6388	0.116 1971	0.124 4711	0.132 7417	46
47	0.101 8049	0.118 7231	0.127 1770	0.135 6274	47
48	0.103 9710	0.121 2492	0.129 8829	0.138 5130	48
49	0.106 1370	0.123 7752	0.132 5888	0.141 3987	49
50	0.108 3031	0.126 3012	0.135 2947	0.144 2844	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	1.2896 4194	1.3453 2504	1.3740 4375	1.4033 6325	51
52	1.2960 9015	1.3531 7277	1.3826 3153	1.4127 1901	52
53	1.3025 7060	1.3610 6628	1.3912 7297	1.4221 3713	53
54	1.3090 8346	1.3690 0583	1.3999 6843	1.4316 1805	54
55	1.3156 2887	1.3769 9170	1.4087 1823	1.4411 6217	55
56	1.3222 0702	1.3850 2415	1.4175 2272	1.4507 6992	56
57	1.3288 1805	1.3931 0346	1.4263 8224	1.4604 4172	57
58	1.3354 6214	1.4012 2990	1.4352 9713	1.4701 7799	58
59	1.3421 3946	1.4094 0374	1.4442 6773	1.4799 7918	59
60	1.3488 5015	1.4176 2526	1.4532 9441	1.4898 4571	60
61	1.3555 9440	1.4258 9474	1.4623 7750	1.4997 7801	51
62	1.3623 7238	1.4342 1246	1.4715 1736	1.5097 7653	62
63	1.3691 8424	1.4425 7870	1.4807 1434	1.5198 4171	63
64	1.3760 3016	1.4509 9374	1.4899 6881	1.5299 7399	64
65	1.3829 1031	1.4594 5787	1.4992 8111	1.5401 7381	65
66	1.3898 2486	1.4679 7138	1.5086 5162	1.5504 4164	66
67	1.3967 7399	1.4765 3454	1.5180 8069	1.5607 7792	67
68	1.4037 5785	1.4851 4766	1.5275 6869	1.5711 8310	68
69	1.4107 7664	1.4938 1102	1.5371 1600	1.5816 5766	69
70	1.4178 3053	1.5025 2492	1.5467 2297	1.5922 0204	70
71	1.4249 1968	1.5112 8965	1.5563 8999	1.6028 1672	71
72	1.4320 4428	1.5201 0550	1.5661 1743	1.6135 0217	72
73	1.4392 0450	1.5289 7279	1.5759 0566	1.6242 5885	73
74	1.4464 0052	1.5378 9179	1.5857 5507	1.6350 8724	74
75	1.4536 3252	1.5468 6283	1.5956 6604	1.6459 8782	75
76	1.4609 0069	1.5558 8620	1.6056 3896	1.6569 6107	76
77	1.4682 0519	1.5649 6220	1.6156 7420	1.6680 0748	77
78	1.4755 4622	1.5740 9115	1.6257 7216	1.6791 2753	78
79	1.4829 2395	1.5832 7334	1.6359 3324	1.6903 2172	79
80	1.4903 3857	1.5925 0910	1.6461 5782	1.7015 9053	80
81	1.4977 9026	1.6017 9874	1.6564 4631	1.7129 3446	81
82	1.5052 7921	1.6111 4257	1.6667 9910	1.7243 5403	82
83	1.5128 0561	1.6205 4090	1.6772 1659	1.7358 4972	83
84	1.5203 6964	1.6299 9405	1.6876 9920	1.7474 2205	84
85	1.5279 7148	1.6395 0235	1.6982 4732	1.7590 7153	85
86	1.5356 1134	1.6490 6612	1.7088 6136	1.7707 9868	86
87	1.5432 8940	1.6586 8567	1.7195 4175	1.7826 0400	87
88	1.5510 0585	1.6683 6134	1.7302 8888	1.7944 8803	88
89	1.5587 6087	1.6780 9344	1.7411 0319	1.8064 5128	89
90	1.5665 5468	1.6878 8232	1.7519 8508	1.8184 9429	90
91	1.5743 8745	1.6977 2830	1.7629 3499	1.8306 1758	91
92	1.5822 5939	1.7076 3172	1.7739 5333	1.8428 2170	92
93	1.5901 7069	1.7175 9290	1.7850 4054	1.8551 0718	93
94	1.5981 2154	1.7276 1219	1.7961 9704	1.8674 7456	94
95	1.6061 1215	1.7376 8993	1.8074 2328	1.8799 2439	95
96	1.6141 4271	1.7478 2646	1.8187 1967	1.8924 5722	96
97	1.6222 1342	1.7580 2211	1.8300 8667	1.9050 7360	97
98	1.6303 2449	1.7682 7724	1.8415 2471	1.9177 7409	98
99	1.6384 7611	1.7785 9219	1.8530 3424	1.9305 5925	99
100	1.6466 6849	1.7889 6731	1.8646 1570	1.9434 2965	100

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	0.110 4691	0.128 8272	0.138 0006	0.147 1701	51
52	0.112 6352	0.131 3533	0.140 7065	0.150 0558	52
53	0.114 8013	0.133 8793	0.143 4124	0.152 9415	53
54	0.116 9673	0.136 4053	0.146 1182	0.155 8272	54
55	0.119 1334	0.138 9313	0.148 8241	0.158 7129	55
56	0.121 2995	0.141 4573	0.151 5300	0.161 5985	56
57	0.123 4655	0.143 9834	0.154 2359	0.164 4842	57
58	0.125 6316	0.146 5094	0.156 9418	0.167 3699	58
59	0.127 7976	0.149 0354	0.159 6477	0.170 2556	59
60	0.129 9637	0.151 5614	0.162 3536	0.173 1413	60
61	0.132 1298	0.154 0875	0.165 0595	0.176 0270	61
62	0.134 2958	0.156 6135	0.167 7654	0.178 9127	62
63	0.136 4619	0.159 1395	0.170 4713	0.181 7984	63
64	0.138 6279	0.161 6655	0.173 1772	0.184 6841	64
65	0.140 7940	0.164 1916	0.175 8831	0.187 5697	65
66	0.142 9601	0 166 7176	0.178 5890	0.190 4554	66
67	0.145 1261	0.169 2436	0.181 2949	0.193 3411	67
68	0.147 2922	0.171 7696	0.184 0008	0.196 2268	68
69	0.149 4583	0.174 2957	0.186 7066	0.199 1125	69
70	0.151 6243	0.176 8217	0.189 4125	0.201 9982	70
71	0.153 7904	0.179 3477	0.192 1184	0.204 8839	71
72	0.155 9564	0.181 8737	0.194 8243	0.207 7696	72
73	0.158 1225	0.184 3998	0.197 5302	0.210 6552	73
74	0.160 2886	0.186 9258	0.200 2361	0.213 5409	74
75	0.162 4546	0.189 4518	0.202 9420	0.216 4266	75
76	0.164 6207	0.191 9778	0.205 6479	0.219 3123	76
77	0.166 7868	0.194 5039	0.208 3538	0.222 1980	77
78	0.168 9528	0.197 0299	0.211 0597	0.225 0837	78
79	0.171 1189	0.199 5559	0.213 7656	0.227 9694	79
80	0.173 2849	0.202 0819	0.216 4715	0.230 8551	80
81	0.175 4510	0.204 6080	0.219 1774	0.233 7408	81
82	0.177 6171	0.207 1340	0.221 8833	0.236 6264	82
83	0.179 7831	0.209 6600	0.224 5892	0.239 5121	83
84	0.181 9492	0.212 1860	0.227 2950	0.242 3978	84
85	0.184 1152	0.214 7120	0.230 0009	0.245 2835	85
86	0.186 2813	0.217 2381	0.232 7068	0.248 1692	86
87	0.188 4474	0.219 7641	0.235 4127	0.251 0549	87
88	0.190 6134	0.222 2901	0.238 1186	0.253 9406	88
89	0.192 7795	0.224 8161	0.240 8245	0.256 8263	89
90	0.194 9456	0.227 3422	0.243 5304	0.259 7119	90
91	0.197 1116	0.229 8682	0.246 2363	0.262 5976	91
92	0.199 2777	0.232 3942	0.248 9422	0.265 4833	92
93	0.201 4437	0.234 9202	0.251 6481	0.268 3690	93
94	0.203 6098	0.237 4463	0.254 3540	0.271 2547	94
95	0.205 7759	0.239 9723	0.257 0599	0.274 1404	95
96	0.207 9419	0.242 4983	0.259 7658	0.277 0261	96
97	0.210 1080	0.245 0243	0.262 4717	0.279 9118	97
98	0.212 2740	0.247 5504	0.265 1776	0.282 7975	98
99	0.214 4401	0.250 0764	0.267 8834	0.285 6831	99
100	0.216 6062	0.252 6024	0.270 5893	0.288 5688	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	u
101	1.6549 0183	1.7994 0295	1.8762 6955	1.9563 8585	101
102	1.6631 7634	1.8098 9947	1.8879 9624	1.9694 2842	102
103	1.6714 9223	1.8204 5722	1.8997 9621	1.9825 5794	103
104	1.6798 4969	1.8310 7655	1.9116 6994	1.9957 7499	104
105	1.6882 4894	1.8417 5783	1.9236 1788	2.0090 8016	105
106	1.6966 9018	1.8525 0142	1.9356 4049	2.0224 7403	106
107	1.7051 7363	1.8633 0768	1.9477 3824	2.0359 5719	107
108	1.7136 9950	1.8741 7697	1.9599 1161	2.0495 3024	108
109	1.7222 6800	1.8851 0967	1.9721 6105	2.0631 9377	109
110	1.7308 7934	1.8961 0614	1.9844 8706	2.0769 4840	110
111	1.7395 3373	1.9071 6676	1.9968 9010	2.0907 9472	111
112	1.7482 3140	1.9182 9190	2.0093 7067	2.1047 3335	112
113	1.7569 7256	1.9294 8194	2.0219 2923	2.1187 6491	113
114	1.7657 5742	1.9407 3725	2.0345 6629	2.1328 9000	114
115	1.7745 8621	1.9520 5822	2.0472 8233	2.1471 0927	115
116	1.7834 5914	1.9634 4522	2.0600 7785	2.1614 2333	116
117	1.7923 7644	1.9748 9865	2.0729 5333	2.1758 3282	117
118	1.8013 3832	1.9864 1890	2.0859 0929	2.1903 3837	118
119	1.8103 4501	1.9980 0634	2.0989 4622	2.2049 4063	119
120	1.8193 9673	2.0096 6138	2.1120 6464	2.2196 4023	120
121	1.8284 9372	2.0213 8440	2.1252 6504	2.2344 3784	121
122	1.8376 3619	2.0331 7581	2.1385 4795	2.2493 3409	122
123	1.8468 2437	2.0450 3600	2.1519 1387	2.2643 2965	123
124	1.8560 5849	2.0569 6538	2.1653 6333	2.2794 2518	124
125	1.8653 3878	2.0689 6434	2.1788 9685	2.2946 2135	125
126	1.8746 6548	2.0810 3330	2.1925 1496	2.3099 1882	126
127	1.8840 3880	2.0931 7266	2.2062 1818	2.3253 1828	127
128	1.8934 5900	2.1053 8284	2.2200 0704	2.3408 2040	128
129	1.9029 2629	2.1176 6424	2.2338 8209	2.3564 2587	129
130	1.9124 4092	2.1300 1728	2.2478 4385	2.3721 3538	130
131	1.9220 0313	2.1424 4238	2.2618 9287	2.3879 4962	131
132	1.9316 1314	2.1549 3996	2.2760 2970	2.4038 6928	132
133	1.9412 7121	2.1675 1044	2.2902 5489	2.4198 9507	133
134	1.9509 7757	2.1801 5425	2.3045 6898	2.4360 2771	134
135	1.9607 3245	2.1928 7182	2.3189 7254	2.4522 6789	135
136	1.9705 3612	2.2056 6357	2.3334 6612	2.4686 1635	136
137	1.9803 8880	2.2185 2994	2.3480 5028	2.4850 7379	137
138	1.9902 9074	2.2314 7137	2.3627 2559	2.5016 4095	138
139	2.0002 4219	2.2444 8828	2.3774 9263	2.5183 1855	139
140	2.0102 4340	2.2575 8113	2.3923 5196	2.5351 0734	140
141	2.0202 9462	2.2707 5036	2.4073 0416	2.5520 0806	141
142	2.0303 9609	2.2839 9640	2.4223 4981	2.5690 2145	142
143	2.0405 4808	2.2973 1971	2.4374 8950	2.5861 4826	143
144	2.0507 5082	2.3107 2074	2.4527 2380	2.6033 8924	144
145	2.0610 0457	2.3241 9995	2.4680 5333	2.6207 4517	145
146	2.0713 0959	2.3377 5778	2.4834 7866	2.6382 1681	146
147	2.0816 6614	2.3513 9470	2.4990 0040	2.6558 0492	147
148	2.0920 7447	2.3651 1117	2.5146 1916	2.6735 1028	148
149	2.1025 3484	2.3789 0765	2.5303 3553	2.6913 3369	149
150	2.1130 4752	2.3927 8461	2.5461 5012	2.7092 7591	150

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	0.218 7722	0.255 1284	0.273 2952	0.291 4545	101
102	0.220 9383	0.257 6545	0.276 0011	0.294 3402	102
103	0.223 1044	0.260 1805	0.278 7070	0.297 2259	103
104	0.225 2704	0.262 7065	0.281 4129	0.300 1116	104
105	0.227 4365	0.265 2325	0.284 1188	0.302 9973	105
106	0.229 6025	0.267 7586	0.286 8247	0.305 8830	106
107	0.231 7686	0.270 2846	0.289 5306	0.308 7686	107
108	0.233 9347	0.272 8106	0.292 2365	0.311 6543	108
109	0.236 1007	0.275 3366	0.294 9424	0.314 5400	109
110	0.238 2668	0.277 8627	0.297 6438	0.317 4257	110
111	0.240 4328	0.280 3887	0.300 3542	0.320 3114	111
112	0.242 5989	0.282 9147	0.303 0601	0.323 1971	112
113	0.244 7650	0.285 4407	0.305 7660	0.326 0828	113
114	0.246 9310	0.287 9667	0.308 4718	0.328 9685	114
115	0.249 0971	0.290 4928	0.311 1777	0.331 8542	115
116	0.251 2632	0.293 0188	0.313 8836	0.334 7398	116
117	0.253 4292	0.295 5448	0.316 5895	0.337 6255	117
118	0.255 5953	0.298 0708	0.319 2954	0.340 5112	118
119	0.257 7613	0.300 5969	0.322 0013	0.343 3969	119
120	0.259 9274	0.303 1229	0.324 7072	0.346 2826	120
121	0.262 0935	0.305 6489	0.327 4131	0.249 1683	121
122	0.264 2595	0.308 1749	0.330 1190	0.352 0540	122
123	0.266 4256	0.310 7010	0.332 8249	0.354 9397	123
124	0.268 5917	0.313 2270	0.335 5308	0.357 8253	124
125	0.270 7577	0.315 7530	0.338 2367	0.360 7110	125
126	0.272 9238	0.318 2790	0.340 9426	0.363 5967	126
127	0.275 0898	0.320 8051	0.343 6485	0.366 4824	127
128	0.277 2559	0.323 3311	0.346 3544	0.369 3681	128
129	0.279 4220	0.325 8571	0.349 0602	0.372 2538	129
130	0.281 5880	0.328 3831	0.351 7661	0.375 1395	130
131	0.283 7541	0.330 9092	0.354 4720	0.378 0252	131
132	0.285 9201	0.333 4352	0.357 1779	0.380 9109	132
133	0.288 0862	0.335 9612	0.359 8838	0.383 7965	133
134	0.290 2523	0.338 4872	0.362 5897	0.386 6822	134
135	0.292 4183	0.341 0133	0.365 2956	0.389 5679	135
136	0.294 5844	0.343 5393	0.368 0015	0.392 4536	136
137	0.296 7505	0.346 0653	0.370 7074	0.395 3393	137
138	0.298 9165	0.348 5913	0.373 4133	0.398 2250	138
139	0.301 0826	0.351 1173	0.376 1192	0.401 1107	139
140	0.303 2486	0.353 6434	0.378 8251	0.403 9964	140
141	0.305 4147	0.356 1694	0.381 5310	0.406 8821	141
142	0.307 5808	0.358 6954	0.384 2369	0.409 7677	142
143	0.309 7468	0.361 2214	0.386 9428	0.412 6534	143
144	0.311 9129	0.363 7475	0.389 6486	0.415 5391	144
145	0.314 0790	0.366 2735	0.392 3545	0.418 4248	145
146	0.316 2450	0.368 7995	0.395 0604	0.421 3105	146
147	0.318 4111	0.371 3255	0.397 7663	0.424 1962	147
148	0.320 5771	0.373 8516	0.400 4722	0.427 0819	148
149	0.322 7432	0.376 3776	0.403 1781	0.429 9676	149
150	0.324 9093	0.378 9036	0.405 8840	0.432 8532	150

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	2.1236 1276	2.4067 4252	2.5620 6356	2.7273 3775	151
152	2.1342 3082	2.4207 8186	2.5780 7646	2.7455 2000	152
153	2.1449 0197	2.4349 0308	2.5941 8944	2.7638 2347	153
154	2.1556 2648	2.4491 0668	2.6104 0312	2.7822 4896	154
155	2.1664 0462	2.4633 9314	2.6267 1814	2.8007 9729	155
156	2.1772 3664	2.4777 6293	2.6431 3513	2.8194 6927	156
157	2.1881 2282	2.4922 1655	2.6596 5472	2.8382 6573	157
158	2.1990 6344	2.5067 5448	2.6762 7756	2.8571 8750	158
159	2.2100 5875	2.5213 7722	2.6930 0430	2.8762 3542	159
160	2.2211 0905	2.5360 8525	2.7098 3558	2.8954 1032	160
161	2.2322 1459	2.5508 7908	2.7267 7205	2.9147 1306	161
162	2.2433 7566	2.5657 5921	2.7438 1437	2.9341 4448	162
163	2.2545 9254	2.5807 2614	2.7609 6321	2.9537 0544	163
164	2.2658 6551	2.5957 8037	2.7782 1923	2.9733 9681	164
165	2.2771 9483	2.6109 2242	2.7955 8310	2.9932 1945	165
166	2.2885 8081	2.6261 5280	2.8130 5550	3.0131 7425	166
167	2.3000 2371	2.6414 7203	2.8306 3710	3.0332 6208	167
168	2.3115 2383	2.6568 8062	2.8483 2858	3.0534 3883	168
169	2.3230 8145	2.6723 7909	2.8661 3063	3.0738 4038	169
170	2.3346 9686	2.6879 6796	2.8840 4395	3.0943 3265	170
171	2.3463 7034	2.7036 4778	2.9020 6922	3.1149 6154	171
172	2.3581 0219	2.7194 1906	2.9202 0715	3.1357 2795	172
173	2.3698 9270	2.7352 8233	2.9384 5845	3.1566 3280	173
174	2.3817 4217	2.7512 3815	2.9568 2381	3.1776 7702	174
175	2.3936 5088	2.7672 8704	2.9753 0396	3.1988 6153	175
176	2.4056 1913	2.7834 2954	2.9938 9961	3.2201 8728	176
177	2.4176 4723	2.7996 6622	3.0126 1149	3.2416 5519	177
178	2.4297 3546	2.8159 9760	3.0314 4031	3.2632 6623	178
179	2.4418 8414	2.8324 2426	3.0503 8681	3.2850 2134	179
180	2.4540 9356	2.8489 4673	3.0694 5173	3.3069 2148	180
181	2.4663 6403	2.8655 6559	3.0886 3580	3.3289 6762	181
182	2.4786 9585	2.8822 8139	3.1079 3977	3.3511 6074	182
183	2.4910 8933	2.8990 9469	3.1272 6440	3.3735 0181	183
184	2.5035 4478	2.9160 0608	3.1469 1043	3.3959 9182	184
185	2.5160 6250	2.9330 1612	3.1665 7862	3.4186 3177	185
186	2.5286 4281	2.9501 2538	3.1863 6973	3.4414 2265	186
187	2.5412 8603	2.6973 3444	3.2062 8454	3.4643 6546	187
188	2.5539 9246	2.9846 4389	3.2263 2382	3.4874 6123	188
189	2.5667 6242	3.0020 5431	3.2464 8834	3.5107 1097	189
190	2.5795 9623	3.0195 6630	3.2667 7890	3.5341 1571	190
191	2.5924 9421	3.0371 8043	3.2871 9627	3.5576 7649	191
192	2.6054 5668	3.0548 9732	3.3077 4124	3.5813 9433	192
193	2.6184 8397	3.0727 1755	3.3284 1462	3.6052 7029	193
194	2.6315 7639	3.0906 4174	3.3492 1722	3.6293 0543	194
195	2.6447 3427	3.1086 7048	3.3701 4982	3.6535 0080	195
196	2.6579 5794	3.1268 0440	3.3912 1326	3.6778 5747	196
197	2.6712 4773	3.1450 4409	3.4124 0834	3.7023 7652	197
198	2.6846 0397	3.1633 9018	3.4337 3589	3.7270 5903	198
199	2.6980 2699	3.1818 4329	3.4551 9674	3.7519 0609	199
200	2.7115 1712	3.2004 0404	3.4767 9172	3.7769 1880	200

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	0.327 0753	0.381 4296	0.408 5899	0.435 7389	151
152	0.329 2414	0.383 9557	0.411 2958	0.438 6246	152
153	0.331 4074	0.386 4817	0.414 0017	0.441 5103	153
154	0.333 5735	0.389 0077	0.416 7076	0.444 3960	154
155	0.355 7396	0.391 5337	0.419 4135	0.447 2817	155
156	0.337 9056	0.394 0598	0.422 1194	0.450 1674	156
157	0.340 0717	0.396 5858	0.424 8253	0.453 0531	157
158	0.342 2377	0.399 1118	0.427 5312	0.455 9388	158
159	0.344 4038	0.401 6378	0.430 2371	0.458 8244	159
160	0.346 5699	0.404 1639	0.432 9429	0.461 7101	160
161	0.348 7359	0.406 6899	0.435 6488	0.464 5958	161
162	0.350 9020	0.409 2159	0.438 3547	0.467 4815	162
163	0.353 0681	0.411 7419	0.441 0606	0.470 3672	163
164	0.355 2341	0.414 2680	0.443 7665	0.473 2529	164
165	0.357 4002	0.416 7940	0.446 4724	0.476 1386	165
166	0.359 5662	0.419 3200	0.449 1783	0.479 0243	166
167	0.361 7323	0.421 8460	0.451 8842	0.481 9099	167
168	0.363 8984	0.424 3720	0.454 5901	0.484 7956	168
169	0.366 0644	0.426 8981	0.457 2960	0.487 6813	169
170	0.368 2305	0.429 4241	0.460 0019	0.490 5670	170
171	0.370 3966	0.431 9501	0.462 7078	0.493 4527	171
172	0.372 5626	0.434 4761	0.465 4137	0.496 3384	172
173	0.374 7287	0.437 0022	0.468 1196	0.499 2241	173
174	0.376 8947	0.439 5282	0.470 8255	0.502 1098	174
175	0.379 0608	0.442 0542	0.473 5313	0.504 9955	175
176	0.381 2269	0.444 5802	0.476 2372	0.507 8811	176
177	0.383 3929	0.447 1063	0.478 9431	0.510 7668	177
178	0.385 5590	0.449 6323	0.481 6490	0.513 6525	178
179	0.387 7250	0.452 1583	0.484 3549	0.516 5382	179
180	0.389 8911	0.454 6843	0.487 0608	0.519 4239	180
181	0.392 0572	0.457 2104	0.489 7667	0.522 3096	181
182	0.384 2232	0.459 7364	0.492 4726	0.525 1953	182
183	0.396 3893	0.462 2624	0.495 1785	0.528 0810	183
184	0.398 5554	0.464 7884	0.497 8844	0.530 9666	184
185	0.400 7214	0.467 3145	0.500 5903	0.533 8523	185
186	0.402 8875	0.469 8405	0.503 2962	0.536 7380	186
187	0.405 0535	0.472 3665	0.506 0021	0.539 6237	187
188	0.407 2196	0.474 8925	0.508 7080	0.542 5094	188
189	0.409 3857	0.477 4186	0.511 4139	0.545 3951	189
190	0.411 5517	0.479 9446	0.514 1197	0.548 2808	190
191	0.413 7178	0.482 4706	0.516 8256	0.551 1665	191
192	0.415 8838	0.484 9966	0.519 5315	0.554 0522	192
193	0.418 0499	0.487 5227	0.522 2374	0.556 9378	193
194	0.420 2160	0.490 0487	0.524 9433	0.559 8235	194
195	0.422 3820	0.492 5747	0.527 6492	0.562 7092	195
196	0.424 5481	0.495 1007	0.530 3551	0.565 5949	196
197	0.426 7142	0.497 6267	0.533 0610	0.568 4806	197
198	0.428 8802	0.500 1528	0.535 7669	0.571 3663	198
199	0.431 0463	0.502 6788	0.538 4728	0.574 2520	199
200	0.433 2123	0.505 2048	0.541 1787	0.577 1377	200

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	1.0075 0000	1.0087 5000	1.0100 0000	1.0112 5000	1
2	1.0150 5625	1 0175 7656	1.0201 0000	1.0226 2656	2
3	1.0226 6917	1.0264 8036	1.0303 0100	1.0341 3111	3
4	1.0303 3919	1.0354 6206	1.0406 0401	1.0457 6509	4
5	1.0380 6673	1.0445 2235	1.0510 1005	1.0575 2994	5
6	1.0458 5224	1.0536 6192	1.0615 2015	1.0694 2716	6
7	1.0536 9613	1.0628 8147	1.0721 3535	1.0814 5821	7
8	1.0615 9885	1.0721 8168	1.0828 5671	1.0936 2462	8
9	1.0695 6084	1.0815 6327	1.0936 8527	1.1059 2789	9
10	1.0775 8255	1.0910 2695	1.1046 2213	1.1183 6958	10
11	1.0856 6441	1.1005 7343	1.1156 6835	1.1309 5124	11
12	1.0938 0690	1.1102 0345	1.1268 2503	1.1436 7444	12
13	1.1020 1045	1.1199 1773	1.1380 9328	1.1565 4078	13
14	1.1102 7553	1.1297 1701	1.1494 7421	1.1695 5186	14
15	1.1186 0259	1.1396 0203	1.1609 6896	1.1827 0932	15
16	1.1269 9211	1.1495 7355	1.1725 7864	1.1960 1480	16
17	1.1354 4455	1.1596 3232	1.1843 0443	1.2094 6997	17
18	1.1439 6039	1.1697 7910	1.1961 4748	1.2230 7650	18
19	1.1525 4009	1.1800 1467	1.2081 0895	1.2368 3611	19
20	1.1611 8414	1.1903 3980	1.2201 9004	1.2507 5052	20
21	1.1698 9302	1.2007 5527	1.2323 9194	1.2648 2146	21
22	1.1786 6722	1.2112 6188	1.2447 1586	1.2790 5071	22
23	1.1875 0723	1.2218 6042	1.2571 6302	1.2934 4003	23
24	1.1964 1353	1.2325 5170	1.2697 3465	1.3079 9123	24
25	1.2053 8663	1.2433 3653	1.2824 3200	1.3227 0613	25
26	1.2144 2703	1.2542 1572	1.2952 5631	1.3375 8657	26
27	1.2235 3523	1.2651 9011	1.3082 0888	1.3526 3442	27
28	1.2327 1175	1.2762 6052	1.3212 9097	1.3678 5156	28
29	1.2419 5709	1.2874 2780	1.3345 0388	1.3832 3989	29
30	1.2512 7176	1.2986 9280	1.3478 4892	1.3988 0134	30
31	1.2606 5630	1.3100 5636	1.3613 2740	1.4145 3785	31
32	1.2701 1122	1.3215 1935	1.3749 4068	1.4304 5140	32
33	1.2796 3706	1.3330 8265	1.3886 9009	1.4465 4398	33
34	1.2892 3434	1.3447 4712	1.4025 7699	1.4628 1760	34
35	1.2989 0359	1.3565 1366	1.4166 0276	1.4792 7430	35
36	1.3086 4537	1.3683 8315	1.4307 6878	1.4959 1613	36
37	1.3184 6021	1.3803 5650	1.4450 7647	1.5127 4519	37
38	1.3283 4866	1.3924 3462	1.4595 2724	1.5297 6357	38
39	1.3383 1128	1.4046 1843	1.4741 2251	1.5469 7341	39
40	1.3483 4861	1.4169 0884	1.4888 6373	1.5643 7687	40
41	1.3584 6123	1.4293 0679	1.5037 5237	1.5819 7611	41
42	1.3686 4969	1.4418 1322	1.5187 8989	1.5997 7334	42
43	1.3789 1456	1.4544 2909	1.5339 7779	1.6177 7079	43
44	1.3892 5642	1.4671 5534	1.5493 1757	1.6359 7071	44
45	1.3996 7584	1.4799 9295	1.5648 1075	1.6543 7538	45
46	1.4101 7341	1.4929 4289	1.5804 5885	1.6729 8710	46
47	1.4207 4971	1.5060 0614	1.5962 6344	1.6918 0821	47
48	1.4314 0533	1.5191 8370	1.6122 2608	1.7108 4105	48
49	1.4421 4087	1.5324 7655	1.6283 4834	1.7300 8801	49
50	1.4529 5693	1.5458 8572	1.6446 3182	1.7495 5150	50

Logarithm of Amount of 1 at Compound Interest

$\log (1+i)^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	0.003 2451	0.003 7835	0.004 3214	0.004 8585	1
2	0.006 4901	0.007 5671	0.008 6427	0.009 7171	2
3	0.009 7352	0.011 3506	0.012 9641	0.014 5756	3
4	0.012 9802	0.015 1342	0.017 2855	0.019 4341	4
5	0.016 2253	0.018 9177	0.021 6069	0.024 2927	5
6	0.019 4703	0.022 7013	0.025 9282	0.029 1512	6
7	0.022 7154	0.026 4848	0.030 2496	0.034 0097	7
8	0.025 9604	0.030 2684	0.034 5710	0.038 8683	8
9	0.029 2055	0.034 0519	0.038 8924	0.043 7268	9
10	0.032 4505	0.037 8355	0.043 2137	0.048 5853	10
11	0.035 6956	0.041 6190	0.047 5350	0.053 4439	11
12	0.038 9407	0.045 4026	0.051 8565	0.058 3024	12
13	0.042 1857	0.049 1861	0.056 1779	0.063 1609	13
14	0.045 4308	0.052 9697	0.060 4992	0.068 0195	14
15	0.048 6758	0.056 7532	0.064 8206	0.072 8780	15
16	0.051 9209	0.060 5368	0.069 1420	0.077 7366	16
17	0.055 1659	0.064 3203	0.073 4634	0.082 5951	17
18	0.058 4110	0.068 1039	0.077 7847	0.087 4536	18
19	0.061 6560	0.071 8874	0.082 1061	0.092 3122	19
20	0.064 9011	0.075 6710	0.086 4275	0.097 1707	20
21	0.068 1462	0.079 4545	0.090 7488	0.102 0292	21
22	0.071 3912	0.083 2380	0.095 0702	0.106 8878	22
23	0.074 6363	0.087 0216	0.099 3916	0.111 7463	23
24	0.077 8813	0.090 8051	0.103 7130	0.116 6048	24
25	0.081 1264	0.094 5887	0.108 0343	0.121 4634	25
26	0.084 3714	0.098 3722	0.112 3557	0.126 3219	26
27	0.087 6165	0.102 1558	0.116 6771	0.131 1804	27
28	0.090 8615	0.105 9393	0.120 9985	0.136 0390	28
29	0.094 1066	0.109 7229	0.125 3198	0.140 8975	29
30	0.097 3516	0.113 5064	0.129 6412	0.145 7560	30
31	0.100 5967	0.117 2900	0.133 9626	0.150 6146	31
32	0.103 8418	0.121 0735	0.138 2840	0.155 4731	32
33	0.107 0868	0.124 8571	0.142 6053	0.160 3316	33
34	0.110 3319	0.128 6406	0.146 9267	0.165 1902	34
35	0.113 5769	0.132 4242	0.151 2481	0.170 0487	35
36	0.116 8220	0.136 2077	0.155 5695	0.174 9072	36
37	0.120 0670	0.139 9913	0.159 8908	0.179 7658	37
38	0.123 3121	0.143 7748	0.164 2122	0.184 6243	38
39	0.126 5571	0.147 5584	0.168 5336	0.189 4828	39
40	0.129 8022	0.151 3419	0.172 8550	0.194 3414	40
41	0.133 0472	0.155 1255	0.177 1763	0.199 1999	41
42	0.136 2923	0.158 9090	0.181 4977	0.204 0585	42
43	0.139 5374	0.162 6926	0.185 8191	0.208 9170	43
44	0.142 7824	0.166 4761	0.190 1404	0.213 7755	44
45	0.146 0275	0.170 2596	0.194 4618	0.218 6341	45
46	0.149 2725	0.174 0432	0.198 7832	0.223 4926	46
47	0.152 5176	0.177 8267	0.203 1046	0.228 3511	47
48	0.155 7626	0.181 6103	0.207 4259	0.233 2097	48
49	0.159 0077	0.185 3938	0.211 7473	0.238 0682	49
50	0.162 2527	0.189 1774	0.216 0687	0.242 9267	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	¾%	⅞%	1%	1⅛%	n
51	1.4638 5411	1.5594 1222	1.6610 7814	1.7692 3395	51
52	1.4748 3301	1.5730 5708	1.6776 8892	1.7891 3784	52
53	1.4858 9426	1.5868 2133	1.6944 6581	1.8092 6564	53
54	1.4970 3847	1.6007 0602	1.7114 1047	1.8296 1988	54
55	1.5082 6626	1.6147 1219	1.7285 2457	1.8502 0310	55
56	1.5195 7825	1.6288 4093	1.7458 0982	1.8710 1788	56
57	1.5309 7509	1.6430 9328	1.7632 6792	1.8920 6684	57
58	1.5424 5740	1.6574 7035	1.7809 0060	1.9133 5259	58
59	1.5540 2583	1.6719 7322	1.7987 0960	1.9348 7780	59
60	1.5656 8103	1.6866 0298	1.8166 9670	1.9566 4518	60
61	1.5774 2363	1.7013 6076	1.8348 6367	1.9786 5744	61
62	1.5892 5431	1.7162 4766	1.8532 1230	2.0009 1733	62
63	1.6011 7372	1.7312 6483	1.8717 4443	2.0234 2765	63
64	1.6131 8252	1.7464 1340	1.8904 6187	2.0461 9121	64
65	1.6252 8139	1.7616 9452	1.9093 6649	2.0692 1087	65
66	1.6374 7100	1.7771 0934	1.9284 6015	2.0924 8949	66
67	1.6497 5203	1.7926 5905	1.9477 4475	2.1160 2999	67
68	1.6621 2517	1.8083 4482	1.9672 2220	2.1398 3533	68
69	1.6745 9111	1.8241 6783	1.9868 9442	2.1639 0848	69
70	1.6871 5055	1.8401 2930	2.0067 6337	2.1882 5245	70
71	1.6998 0418	1.8562 3043	2.0268 3100	2.2128 7029	71
72	1.7125 5271	1.8724 7245	2.0470 9931	2.2377 6508	72
73	1.7253 9685	1.8888 5658	2.0675 7031	2.2629 3994	73
74	1.7383 3733	1.9053 8408	2.0882 4601	2.2883 9801	74
75	1.7513 7486	1.9220 5619	2.1091 2847	2.3141 4249	75
76	1.7645 1017	1.9388 7418	2.1302 1975	2.3401 7659	76
77	1.7777 4400	1.9558 3933	2.1515 2195	2.3665 0358	77
78	1.7910 7708	1.9729 5292	2.1730 3717	2.3931 2675	78
79	1.8045 1015	1.9902 1626	2.1947 6754	2.4200 4942	79
80	1.8180 4398	2.0076 3066	2.2167 1522	2.4472 7498	80
81	1.8316 7931	2.0251 9742	2.2388 8237	2.4748 0682	81
82	1.8454 1691	2.0429 1790	2.2612 7119	2.5026 4840	82
83	1.8592 5753	2.0607 9343	2.2838 8390	2.5308 0319	83
84	1.8732 0196	2.0788 2537	2.3067 2274	2.5592 7473	84
85	1.8872 5098	2.0970 1510	2.3297 8997	2.5880 6657	85
86	1.9014 0536	2.1153 6398	2.3530 8787	2.6171 8232	86
87	1.9156 6590	2.1338 7341	2.3766 1875	2.6466 2562	87
88	1.9300 3339	2.1525 4481	2.4003 8494	2.6764 0016	88
89	1.9445 0865	2.1713 7957	2.4243 8879	2.7065 0966	89
90	1.9590 9246	2.1903 7914	2.4486 3267	2.7369 5789	90
91	1.9737 8565	2.2095 4496	2.4731 1900	2.7677 4867	91
92	1.9885 8905	2.2288 7848	2.4978 5019	2.7988 8584	92
93	2.0035 0346	2.2483 8117	2.5228 2869	2.8303 7331	93
94	2.0185 2974	2.2680 5450	2.5480 5698	2.8622 1501	94
95	2.0336 6871	2.2878 9998	2.5735 3755	2.8944 1492	95
96	2.0489 2123	2.3079 1910	2.5992 7293	2.9269 7709	96
97	2.0642 8814	2.3281 1340	2.6252 6565	2.9599 0559	97
98	2.0797 7030	2.3484 8439	2.6515 1831	2.9932 0452	98
99	2.0953 6858	2.3690 3363	2.6780 3349	3.0268 7807	99
100	2.1110 8384	2.3897 6267	2.7048 1383	3.0609 3045	100

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	0.165 4978	0.192 9609	0.220 3901	0.247 7853	51
52	0.168 7428	0.196 7445	0.224 7114	0.252 6438	52
53	0.171 9879	0.200 5280	0.229 0328	0.257 5023	53
54	0.175 2330	0.204 3116	0.233 3542	0.262 3609	54
55	0.178 4780	0.208 0951	0.237 6756	0.267 2194	55
56	0.181 7231	0.211 8787	0.241 9969	0.272 0779	56
57	0.184 9681	0.215 6622	0.246 3183	0.276 9365	57
58	0.188 2132	0.219 4458	0.250 6397	0.281 7950	58
59	0.191 4582	0.223 2293	0.254 9611	0.286 6535	59
60	0.194 7033	0.227 0129	0.259 2824	0.291 5121	60
61	0.197 9483	0.230 7964	0.263 6038	0.296 3706	61
62	0.201 1934	0.234 5800	0.267 9252	0.301 2291	62
63	0.204 4385	0.238 3635	0.272 2465	0.306 0877	63
64	0.207 6835	0.242 1471	0.276 5679	0.310 9462	64
65	0.210 9286	0.245 9306	0.280 8893	0.315 8047	65
66	0.214 1736	0.249 7141	0.285 2107	0.320 6633	66
67	0.217 4187	0.253 4977	0.289 5320	0.325 5218	67
68	0.220 6637	0.257 2812	0.293 8534	0.330 3804	68
69	0.223 9088	0.261 0648	0.298 1748	0.335 2389	69
70	0.227 1538	0.264 8483	0.302 4962	0.340 0974	70
71	0.230 3989	0.268 6319	0.306 8175	0.344 9560	71
72	0.233 6439	0.272 4154	0.311 1389	0.349 8145	72
73	0.236 8890	0.276 1990	0.315 4603	0.354 6730	73
74	0.240 1341	0.279 9825	0.319 7817	0.359 5316	74
75	0.243 3791	0.283 7661	0.324 1030	0.364 3901	75
76	0.246 6242	0.287 5496	0.328 4244	0.369 2486	76
77	0.249 8692	0.291 3332	0.332 7458	0.374 1072	77
78	0.253 1143	0.295 1167	0.337 0672	0.378 9657	78
79	0.256 3593	0.298 9003	0.341 3887	0.383 8242	79
80	0.259 6044	0.302 6838	0.345 7099	0.388 6828	80
81	0.262 8494	0.306 4674	0.350 0313	0.393 5413	81
82	0.266 0945	0.310 2509	0.354 3527	0.398 3998	82
83	0.269 3395	0.314 0345	0.358 6740	0.403 2584	83
84	0.272 5846	0.317 8180	0.362 9954	0.408 1169	84
85	0.275 8297	0.321 6016	0.367 3168	0.412 9754	85
86	0.279 0747	0.325 3851	0.371 6381	0.417 8340	86
87	0.282 3198	0.329 1686	0.375 9595	0.422 6925	87
88	0.285 5648	0.332 9522	0.380 2809	0.427 5510	88
89	0.288 8099	0.336 7357	0.384 6023	0.432 4096	89
90	0.292 0549	0.340 5193	0.388 9237	0.437 2681	90
91	0.295 3000	0.344 3028	0.393 2450	0.442 1266	91
92	0.298 5450	0.348 0864	0.397 5664	0.446 9852	92
93	0.301 7901	0.351 8699	0.401 8878	0.451 8437	93
94	0.305 0352	0.355 6535	0.406 2091	0.456 7023	94
95	0.308 2802	0.359 4370	0.410 5305	0.461 5608	95
96	0.311 5253	0.363 2206	0.414 8519	0.466 4193	96
97	0.314 7703	0.367 0041	0.419 1733	0.471 2779	97
98	0.318 0154	0.370 7877	0.423 4946	0.476 1364	98
99	0.321 2604	0.374 5712	0.427 8160	0.480 9949	99
100	0.324 5055	0.378 3548	0.432 1374	0.485 8535	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	¾%	⅞%	1%	1⅛%	n
101	2.1269 1697	2.4106 7309	2.7318 6197	3.0953 6592	101
102	2.1428 6885	2.4317 6648	2.7591 8059	3.1301 8879	102
103	2.1589 4036	2.4530 4444	2.7867 7239	3.1654 0341	103
104	2.1751 3242	2.4745 0858	2.8146 4012	3.2010 1420	104
105	2.1914 4591	2 4961 6053	2.8427 8652	3.2370 2561	105
106	2.2078 8175	2.5180 0193	2.8712 1438	3.2734 4215	106
107	2.2244 4087	2.5400 3445	2.8999 2653	3.3102 6837	107
108	2.2411 2417	2.5622 5975	2.9289 2579	3.3475 0889	108
109	2.2579 3260	2.5846 7953	2.9582 1505	3.3851 6836	109
110	2.2748 6710	2.6072 9547	2.9877 9720	3.4232 5151	110
111	2.2919 2860	2.6301 0931	3.0176 7517	3.4617 6309	111
112	2.3091 1807	2.6531 2276	3.0478 5192	3.5007 0792	112
113	2.3264 3645	2.6763 3759	3.0783 3044	3.5400 9089	113
114	2.3438 8472	2.6997 5554	3.1091 1375	3.5799 1691	114
115	2.3614 6386	2.7233 7840	3.1402 0489	3.6201 9097	115
116	2.3791 7484	2.7472 0796	3.1716 0693	3.6609 1812	116
117	2.3970 1865	2.7712 4603	3.2033 2300	3.7021 0345	117
118	2.4149 9629	2.7954 9444	3.2353 5623	3.7437 5212	118
119	2.4331 0876	2.8199 5501	3.2677 0980	3.7858 6933	119
120	2.4513 5708	2.8446 2962	3.3003 8689	3.8284 6036	120
121	2.4697 4226	2.8695 2013	3.3333 9076	3.8715 3054	121
122	2.4882 6532	2.8946 2843	3.3667 2467	3.9150 8525	122
123	2.5069 2731	2.9199 5643	3.4003 9192	3.9591 2996	123
124	2.5257 2927	2.9455 0605	3.4343 9584	4.0036 7018	124
125	2.5446 7224	2.9712 7922	3.4687 3980	4.0487 1147	125
126	2.5637 5728	2.9972 7792	3.5034 2719	4.0942 5947	126
127	2.5829 8546	3.0235 0410	3.5384 6147	4.1403 1989	127
128	2.6023 5785	3.0499 5976	3.5738 4608	4.1868 9849	128
129	2.6218 7553	3.0766 4691	3.6095 8454	4.2340 0110	129
130	2.6415 3960	3.1035 6757	3.6456 8039	4.2816 3361	130
131	2.6613 5115	3.1307 2378	3.6821 3719	4.3298 0199	131
132	2.6813 1128	3.1581 1762	3.7189 5856	4.3785 1226	132
133	2.7014 2112	3.1857 5115	3.7561 4815	4.4277 7052	133
134	2.7216 8177	3.2136 2647	3.7937 0963	4.4775 8294	134
135	2.7420 9439	3.2417 4570	3.8316 4673	4.5279 5575	135
136	2.7626 6009	3.2701 1098	3.8699 6319	4.5788 9525	136
137	2.7833 8005	3.2987 2445	3.9086 6282	4.6304 0782	137
138	2.8042 5540	3.3275 8829	3.9477 4945	4.6824 9991	138
139	2.8252 8731	3.3567 0468	3.9872 2695	4.7351 7803	139
140	2.8464 7697	3.3860 7585	4.0270 9922	4.7884 4879	140
141	2.8678 2554	3.4157 0401	4.0673 7021	4.8423 1883	141
142	2.8893 3424	3.4455 9142	4.1080 4391	4.8967 9492	142
143	2.9110 0424	3.4757 4035	4.1491 2435	4.9518 8386	143
144	2.9328 3677	3.5061 5308	4.1906 1559	5.0075 9256	144
145	2.9548 3305	3.5368 3192	4.2325 2175	5.0639 2797	145
146	2.9769 9430	3.5677 7919	4.2748 4697	5.1208 9716	146
147	2.9993 2175	3.5989 9726	4.3175 9544	5.1785 0726	147
148	3.0218 1667	3.6304 8849	4.3607 7139	5.2367 6546	148
149	3.0444 8029	3.6622 5526	4.4043 7910	5.2956 7908	149
150	3.0673 1389	3.6943 0000	4.4484 2290	5.3552 5546	150

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
101	0.327 7505	0.382 1383	0.436 4588	0.490 7120	101
102	0.330 9956	0.385 9219	0.440 7801	0.495 5705	102
103	0.334 2406	0.389 7054	0.445 1015	0.500 4291	103
104	0.337 4857	0.393 4890	0.449 4229	0.505 2876	104
105	0.340 7308	0.397 2725	0.453 7442	0.510 1461	105
106	0.343 9758	0.401 0561	0.458 0656	0.515 0047	106
107	0.347 2209	0.404 8396	0.462 3870	0.519 8632	107
108	0.350 4659	0.408 6232	0.466 7084	0.524 7217	108
109	0.353 7110	0.412 4067	0.471 0297	0.529 5803	109
110	0.356 9560	0.416 1902	0.475 3511	0.534 4388	110
111	0.360 2011	0.419 9738	0.479 6725	0.539 2973	111
112	0.363 4461	0.423 7573	0.483 9939	0.544 1559	112
113	0.366 6912	0.427 5409	0.488 3152	0.549 0144	113
114	0.369 9362	0.431 3244	0.492 6366	0.553 8729	114
115	0.373 1813	0.435 1080	0.496 9580	0.558 7315	115
116	0.376 4264	0.438 8915	0.501 2794	0.563 5900	116
117	0.379 6714	0.442 6751	0.505 6007	0.568 4485	117
118	0.382 9165	0.446 4586	0.509 9221	0.573 3071	118
119	0.386 1615	0.450 2422	0.514 2435	0.578 1656	119
120	0.389 4066	0.454 0257	0.518 5649	0.583 0242	120
121	0.392 6516	0.457 8093	0.522 8862	0.587 8827	121
122	0.395 8967	0.461 5928	0.527 2076	0.592 7412	122
123	0.399 1417	0.465 3764	0.531 5290	0.597 5998	123
124	0.402 3868	0.469 1599	0.535 8504	0.602 4583	124
125	0.405 6319	0.472 9435	0.540 1717	0.607 3168	125
126	0.408 8769	0.476 7270	0.544 4931	0.612 1754	126
127	0.412 1220	0.480 5106	0.548 8145	0.617 0339	127
128	0.415 3670	0.484 2941	0.553 1358	0.621 8924	128
129	0.418 6121	0.488 0777	0.557 4572	0.626 7510	129
130	0.421 8571	0.491 8612	0.561 7786	0.631 6095	130
131	0.425 1022	0.495 6447	0.566 1000	0.636 4680	131
132	0.428 3472	0.499 4283	0.570 4213	0.641 3266	132
133	0.431 5923	0.503 2118	0.574 7427	0.646 1851	133
134	0.434 8373	0.506 9954	0.579 0641	0.651 0436	134
135	0.438 0824	0.510 7789	0.583 3855	0.655 9022	135
136	0.441 3275	0.514 5625	0.587 7068	0.660 7607	136
137	0.444 5725	0.518 3460	0.592 0282	0.665 6192	137
138	0.447 8176	0.522 1296	0.596 3496	0.670 4778	138
139	0.451 0626	0.525 9131	0.600 6710	0.675 3363	139
140	0.454 3077	0.529 6967	0.604 9923	0.680 1948	140
141	0.457 5527	0.533 4802	0.609 3137	0.685 0534	141
142	0.460 7978	0.537 2638	0.613 6351	0.689 9119	142
143	0.464 0428	0.541 0473	0.617 9565	0.694 7704	143
144	0.467 2879	0.544 8309	0.622 2778	0.699 6290	144
145	0.470 5329	0.548 6144	0.626 5992	0.704 4875	145
146	0.473 7780	0.552 3980	0.630 9206	0.709 3461	146
147	0.477 0231	0.556 1815	0.635 2419	0.714 2046	147
148	0.480 2681	0.559 9651	0.639 5633	0.719 0631	148
149	0.483 5132	0.563 7486	0.643 8847	0.723 9217	149
150	0.486 7582	0.567 5322	0.648 2061	0.728 7802	150

Amount of 1 at Compound Interest

$(1+i)^n$

n	¾%	⅞%	1%	1⅛%	n
151	3.0903 1875	3.7266 2512	4.4929 0712	5.4155 0209	151
152	3.1134 9614	3.7592 3309	4.5378 3620	5.4764 2649	152
153	3.1368 4736	3.7921 2638	4.5832 1456	5.5380 3629	153
154	3.1603 7372	3.8253 0749	4.6290 4670	5.6003 3919	154
155	3.1840 7652	3.8587 7893	4.6753 3717	5.6633 4301	155
156	3.2079 5709	3.8925 4324	4.7220 9054	5.7270 5562	156
157	3.2320 1677	3.9266 0300	4.7693 1145	5.7914 8499	157
158	3.2562 5690	3.9609 6077	4.8170 0456	5.8566 3920	158
159	3.2806 7882	3.9956 1918	4.8651 7461	5.9225 2639	159
160	3.3052 8391	4.0305 8085	4.9138 2635	5.9891 5481	160
161	3.3300 7354	4.0658 4843	4.9629 6462	6.0565 3280	161
162	3.3550 4910	4.1014 2460	5.0125 9426	6.1246 6880	162
163	3.3802 1196	4.1373 1207	5.0627 2021	6.1935 7132	163
164	3.4055 6355	4.1735 1355	5.1133 4741	6.2632 4900	164
165	3.4311 0528	4.2100 3179	5.1644 8088	6.3337 1055	165
166	3.4568 3857	4.2468 6957	5.2161 2569	6.4049 6479	166
167	3.4827 6486	4.2840 2968	5.2682 8695	6.4770 2065	167
168	3.5088 8560	4.3215 1494	5.3209 6982	6.5498 8713	168
169	3.5352 0224	4.3593 2819	5.3741 7952	6.6235 7336	169
170	3.5617 1625	4.3974 7232	5.4279 2131	6.6980 8856	170
171	3.5884 2913	4.4359 5020	5.4822 0052	6.7734 4206	171
172	3.6153 4234	4.4747 6476	5.5370 2253	6.8496 4328	172
173	3.6424 5741	4.5139 1896	5.5923 9275	6.9267 0177	173
174	3.6697 7584	4.5534 1575	5.6483 1668	7.0046 2716	174
175	3.6972 9916	4.5932 5813	5.7047 9985	7.0834 2922	175
176	3.7250 2891	4.6334 4914	5.7618 4785	7.1631 1780	176
177	3.7529 6662	4.6739 9182	5.8194 6633	7.2437 0287	177
178	3.7811 1387	4.7148 8925	5.8776 6099	7.3251 9453	178
179	3.8094 7223	4.7561 4453	5.9364 3760	7.4076 0297	179
180	3.8380 4327	4.7977 6080	5.9958 0198	7.4909 3850	180
181	3.8668 2859	4.8397 4120	6.0557 6000	7.5752 1156	181
182	3.8958 2981	4.8820 8894	6.1163 1760	7.6604 3269	182
183	3.9250 4853	4.9248 0722	6.1774 8077	7.7466 1256	183
184	3.9544 8639	4.9678 9928	6.2392 5558	7.8337 6195	184
185	3.9841 4504	5.0113 6840	6.3016 4813	7.9218 9177	185
186	4.0140 2613	5.0552 1787	6.3646 6462	8.0110 1305	186
187	4.0441 3133	5.0994 5103	6.4283 1126	8.1011 3695	187
188	4.0744 6231	5.1440 7123	6.4925 9437	8.1922 7474	188
189	4.1050 2078	5.1890 8185	6.5575 2032	8.2844 3783	189
190	4.1358 0843	5.2344 8631	6.6230 9552	8.3776 3776	190
191	4.1668 2700	5.2802 8807	6.6893 2648	8.4718 8618	191
192	4.1980 7820	5.3264 9059	6.7562 1974	8.5671 9490	192
193	4.2295 6379	5.3730 9738	6.8237 8194	8.6635 7584	193
194	4.2612 8551	5.4201 1199	6.8920 1976	8.7610 4107	194
195	4.2932 4516	5.4675 3797	6.9609 3996	8.8596 0278	195
196	4.3254 4449	5.5153 7892	7.0305 4936	8.9592 7332	196
197	4.3578 8533	5.5636 3849	7.1008 5485	9.0600 6514	197
198	4.3905 6947	5.6123 2033	7.1718 6340	9.1619 9087	198
199	4.4234 9874	5.6614 2813	7.2435 8203	9.2650 6327	199
200	4.4566 7498	5.7109 6562	7.3160 1785	9.3692 9523	200

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	0.490 0033	0.571 3157	0.652 5274	0.733 6387	151
152	0.493 2483	0.575 0993	0.656 8488	0.738 4973	152
153	0.496 4934	0.578 8828	0.661 1702	0.743 3558	153
154	0.499 7384	0.582 6663	0.665 4916	0.748 2143	154
155	0.502 9835	0.586 4499	0.669 8129	0.753 0729	155
156	0.506 2285	0.590 2334	0.674 1343	0.757 9314	156
157	0.509 4736	0.594 0170	0.678 4557	0.762 7899	157
158	0.512 7187	0.597 8005	0.682 7771	0.767 6485	158
159	0.515 9637	0.601 5841	0.687 0984	0.772 5070	159
160	0.519 2088	0.605 3766	0.691 4198	0.777 3655	160
161	0.522 4538	0.609 1512	0.695 7412	0.782 2241	161
162	0.525 6989	0.612 9347	0.700 0626	0.787 0826	162
163	0.528 9439	0.616 7183	0.704 3839	0.791 9411	163
164	0.532 1890	0.620 5018	0.708 7053	0.796 7997	164
165	0.535 4340	0.624 2854	0.713 0267	0.801 6582	165
166	0.538 6791	0.628 0689	0.717 3481	0.806 5167	166
167	0.541 9242	0.631 8525	0.721 6694	0.811 3753	167
168	0.545 1692	0.635 6360	0.725 9908	0.816 2338	168
169	0.548 4143	0.639 4196	0.730 3122	0.821 0923	169
170	0.551 6593	0.643 2031	0.734 6335	0.825 9509	170
171	0.554 9044	0.646 9867	0.738 9549	0.830 8094	171
172	0.558 1494	0.650 7702	0.743 2763	0.835 6680	172
173	0.561 3945	0.654 5538	0.747 5977	0.840 5265	163
174	0.564 6395	0.658 3373	0.751 9190	0.845 3850	174
175	0.567 8846	0.662 1208	0.756 2404	0.850 2436	175
176	0.571 1296	0.665 9044	0.760 5618	0.855 1021	176
177	0.574 3747	0.669 6879	0.764 8832	0.859 9606	177
178	0.577 6198	0.673 4715	0.769 2045	0.864 8192	178
179	0.580 8648	0.677 2550	0.773 5259	0.869 6777	179
180	0.584 1099	0.681 0386	0.777 8473	0.874 5362	180
181	0.587 3549	0.684 8221	0.782 1687	0.879 3948	181
182	0.590 6000	0.688 6057	0.786 4900	0.884 2533	182
183	0.593 8450	0.692 3892	0.790 8114	0.889 1118	183
184	0.597 0901	0.696 1728	0.795 1328	0.893 9704	184
185	0.600 3351	0.699 9563	0.799 4542	0.898 8289	185
186	0.603 5802	0.703 7399	0.803 7755	0.903 6874	186
187	0.606 8252	0.707 5234	0.808 0969	0.908 5460	187
188	0.610 0703	0.711 3070	0.812 4183	0.913 4045	188
189	0.613 3154	0.715 0905	0.816 7396	0.918 2630	189
190	0.616 5604	0.718 8741	0.821 0610	0.923 1216	190
191	0.619 8055	0.722 6576	0.825 3824	0.927 9801	191
192	0.623 0505	0.726 4412	0.829 7038	0.932 8386	192
193	0.626 2956	0.730 2247	0.834 0251	0.937 6972	193
194	0.629 5406	0.734 0083	0.838 3465	0.942 5557	194
195	0.632 7857	0.737 7918	0.842 6679	0.947 4142	195
196	0.636 0307	0.741 5753	0.846 9893	0.952 2728	196
197	0.639 2758	0.745 3589	0.851 3106	0.957 1313	197
198	0.642 5209	0.749 1424	0.855 6320	0.961 9899	198
199	0.645 7659	0.752 9260	0.859 9534	0.966 8484	199
200	0.649 0110	0.756 7095	0.864 2748	0.971 7069	200

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	1.0125 0000	1.0137 5000	1.0150 0000	1.0175 0000	1
2	1.0251 5625	1.0276 8906	1.0302 2500	1.0353 0625	2
3	1.0379 7070	1.0418 1979	1.0456 7838	1.0534 2411	3
4	1.0509 4534	1.0561 4481	1.0613 6355	1.0718 5903	4
5	1.0640 8215	1.0706 6680	1.0772 8400	1.0906 1656	5
6	1.0773 8318	1.0853 8847	1.0934 4326	1.1097 0235	6
7	1.0908 5047	1.1003 1256	1.1098 4491	1.1291 2215	7
8	1.1044 8610	1.1154 4186	1.1264 9259	1.1488 8178	8
9	1.1182 9218	1.1307 7918	1.1433 8998	1.1689 8721	9
10	1.1322 7083	1.1463 2740	1.1605 4083	1.1894 4449	10
11	1.1464 2422	1.1620 8940	1.1779 4894	1.2102 5977	11
12	1.1607 5452	1.1780 6813	1.1956 1817	1.2314 3931	12
13	1.1752 6395	1.1942 6656	1.2135 5244	1.2529 8950	13
14	1.1899 5475	1.2106 8773	1.2317 5573	1.2749 1682	14
15	1.2048 2918	1.2273 3469	1.2502 3207	1.2972 2786	15
16	1.2198 8955	1.2442 1054	1.2689 8555	1.3199 2935	16
17	1.2351 3817	1.2613 1843	1.2880 2033	1.3430 2811	17
18	1.2505 7739	1.2786 6156	1.3073 4064	1.3665 3111	18
19	1.2662 0961	1.2962 4316	1.3269 5075	1.3904 4540	19
20	1.2820 3723	1.3140 6650	1.3468 5501	1.4147 7820	20
21	1.2980 6270	1.3321 3492	1.3670 5783	1.4395 3681	21
22	1.3142 8848	1.3504 5177	1.3875 6370	1.4647 2871	22
23	1.3307 1709	1.3690 2048	1.4083 7715	1.4903 6146	23
24	1.3473 5105	1.3878 4451	1.4295 0281	1.5164 4279	24
25	1.3641 9294	1.4069 2738	1.4509 4535	1.5429 8054	25
26	1.3812 4535	1.4262 7263	1.4727 0953	1.5699 8269	26
27	1.3985 1092	1.4458 8388	1.4948 0018	1.5974 5739	27
28	1.4159 9230	1.4657 6478	1.5172 2218	1.6254 1290	28
29	1.4336 9221	1.4859 1905	1.5399 8051	1.6538 5762	29
30	1.4516 1336	1.5063 5043	1.5630 8022	1.6828 0013	30
31	1.4697 5853	1.5270 6275	1.5865 2642	1.7122 4913	31
32	1.4881 3051	1.5480 5986	1.6103 2432	1.7422 1349	32
33	1.5067 3214	1.5693 4569	1.6344 7918	1.7727 0223	33
34	1.5255 6629	1.5909 2419	1.6589 9637	1.8037 2452	34
35	1.5446 3587	1.6127 9940	1.6838 8132	1.8352 8970	35
36	1.5639 4382	1.6349 7539	1.7091 3954	1.8674 0727	36
37	1.5834 9312	1.6574 5630	1.7347 7663	1.9000 8689	37
38	1.6032 8678	1.6802 4633	1.7607 9828	1.9333 3841	38
39	1.6233 2787	1.7033 4971	1.7872 1025	1.9671 7184	39
40	1.6436 1946	1.7267 7077	1.8140 1841	2.0015 9734	40
41	1.6641 6471	1.7505 1387	1.8412 2868	2.0366 2530	41
42	1.6849 6677	1.7745 8343	1.8688 4712	2.0722 6624	42
43	1.7060 2885	1.7989 8396	1.8968 7982	2.1085 3090	43
44	1.7273 5421	1.8237 1999	1.9253 3302	2.1454 3019	44
45	1.7489 4614	1.8487 9614	1.9542 1301	2.1829 7522	45
46	1.7708 0797	1.8742 1708	1.9835 2621	2.2211 7728	46
47	1.7929 4306	1.8999 8757	2.0132 7910	2.2600 4789	47
48	1.8153 5485	1.9261 1240	2.0434 7829	2.2995 9872	48
49	1.8380 4679	1.9525 9644	2.0741 3046	2.3398 4170	49
50	1.8610 2237	1.9794 4464	2.1052 4242	2.3807 8893	50

Logarithm of Amount of 1 at Compound Interest

$$\log (1+i)^n$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.005 3950	0.005 9309	0.006 4660	0.007 5344	1
2	0.010 7901	0.011 8617	0.012 9321	0.015 0688	2
3	0.016 1851	0.017 7926	0.019 3981	0.022 6033	3
4	0.021 5801	0.023 7235	0.025 8642	0.030 1377	4
5	0.026 9752	0.029 6543	0.032 3302	0.037 6721	5
6	0.032 3702	0.035 5852	0.038 7963	0.045 2065	6
7	0.037 7652	0.041 5161	0.045 2623	0.052 7409	7
8	0.043 1603	0.047 4469	0.051 7283	0.060 2753	8
9	0.048 5553	0.053 3778	0.058 1944	0.067 8098	9
10	0.053 9504	0.059 3087	0.064 6604	0.075 3442	10
11	0.059 3454	0.065 2395	0.071 1265	0.082 8786	11
12	0.064 7404	0.071 1704	0.077 5925	0.090 4130	12
13	0.070 1354	0.077 1013	0.084 0585	0.097 9474	13
14	0.075 5304	0.083 0321	0.090 5246	0.105 4819	14
15	0.080 9255	0.088 9630	0.096 9906	0.113 0163	15
16	0.086 3205	0.094 8939	0.103 4567	0.120 5507	16
17	0.091 7155	0.100 8247	0.109 9227	0.128 0851	17
18	0.097 1106	0.106 7556	0.116 3888	0.135 6195	18
19	0.102 5056	0.112 6865	0.122 8548	0.143 1539	19
20	0.107 9006	0.118 6173	0.129 3208	0.150 6884	20
21	0.113 2957	0.124 5482	0.135 7869	0.158 2228	21
22	0.118 6907	0.130 4791	0.142 2529	0.165 7572	22
23	0.124 0857	0.136 4099	0.148 7190	0.173 2916	23
24	0.129 4808	0.142 3408	0.155 1850	0.180 8260	24
25	0.134 8758	0.148 2717	0.161 6511	0.188 3604	25
26	0.140 2708	0.154 2025	0.168 1171	0.195 8949	26
27	0.145 6659	0.160 1334	0.174 5831	0.203 4293	27
28	0.151 0609	0.166 0643	0.181 0492	0.210 9637	28
29	0.156 4559	0.171 9951	0.187 5152	0.218 4981	29
30	0.161 8510	0.177 9260	0.193 9813	0.226 0325	30
31	0.167 2460	0.183 8569	0.200 4473	0.233 5670	31
32	0.172 6410	0.189 7878	0.206 9134	0.241 1014	32
33	0.178 0361	0.195 7186	0.213 3794	0.248 6358	33
34	0.183 4311	0.201 6495	0.219 8454	0.256 1702	34
35	0.188 8261	0.207 5804	0.226 3115	0.263 7046	35
36	0.194 2211	0.213 5112	0.232 7775	0.271 2390	36
37	0.199 6162	0.219 4421	0.239 2436	0.278 7735	37
38	0.205 0112	0.225 3730	0.245 7096	0.286 3079	38
39	0.210 4062	0.231 3038	0.252 1756	0.293 8423	39
40	0.215 8013	0.237 2347	0.258 6417	0.301 3767	40
41	0.221 1963	0.243 1656	0.265 1077	0.308 9111	41
42	0.226 5913	0.249 0964	0.271 5738	0.316 4456	42
43	0.231 9864	0.255 0273	0.278 0398	0.323 9800	43
44	0.237 3814	0.260 9582	0.284 5059	0.331 5144	44
45	0.242 7764	0.266 8890	0.290 9719	0.339 0488	45
46	0.248 1715	0.272 8199	0.297 4379	0.346 5832	46
47	0.253 5665	0.278 7508	0.303 9040	0.354 1176	47
48	0.258 9615	0.284 6816	0.310 3700	0.361 6521	48
49	0.264 3566	0.290 6125	0.316 8361	0.369 1865	49
50	0.269 7516	0.296 5434	0.323 3021	0.376 7209	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	1.8842 8515	2.0066 6201	2.1368 2106	2.4224 5274	51
52	1.9078 3872	2.0342 5361	2.1688 7337	2.4648 4566	52
53	1.9316 8670	2.0622 2460	2.2014 0647	2.5079 8046	53
54	1.9558 3279	2.0905 8019	2.2344 2757	2.5518 7012	54
55	1.9802 8070	2.1193 2566	2.2679 4398	2.5965 2785	55
56	2.0050 3420	2.1484 6639	2.3019 6314	2.6419 6708	56
57	2.0300 9713	2.1780 0780	2.3364 9259	2.6882 0151	57
58	2.0554 7335	2.2079 5541	2.3715 3998	2.7352 4503	58
59	2.0811 6676	2.2383 1480	2.4071 1308	2.7831 1182	59
60	2.1071 8135	2.2690 9163	2.4432 1978	2.8318 1628	60
61	2.1335 2111	2.3002 9164	2.4798 6807	2.8813 7306	61
62	2.1601 9013	2.3319 2065	2.5170 6609	2.9317 9709	62
63	2.1871 9250	2.3639 8456	2.5548 2208	2.9831 0354	63
64	2.2145 3241	2.3964 8934	2.5931 4442	3.0343 0785	64
65	2.2422 1407	2.4294 4107	2.6320 4158	3.0884 2574	65
66	2.2702 4174	2.4628 4589	2.6715 2221	3.1424 7319	66
67	2.2986 1976	2.4967 1002	2.7115 9504	3.1974 6647	67
68	2.3273 5251	2.5310 3978	2.7522 6896	3.2534 2213	68
69	2.3564 4442	2.5658 4158	2.7935 5300	3.3103 5702	69
70	2.3858 9997	2.6011 2190	2.8354 5629	3.3682 8827	70
71	2.4157 2372	2.6368 8732	2.8779 8814	3.4272 3331	71
72	2.4459 2027	2.6731 4453	2.9211 5796	3.4872 0990	72
73	2.4764 9427	2.7099 0026	2.9649 7533	3.5482 3607	73
74	2.5074 5045	2.7471 6139	3.0094 4996	3.6103 3020	74
75	2.5387 9358	2.7849 3486	3.0545 9171	3.6735 1098	75
76	2.5705 2850	2.8232 2771	3.1004 1059	3.7377 9742	76
77	2.6026 6011	2.8620 4710	3.1469 1674	3.8032 0888	77
78	2.6351 9336	2.9014 0024	3.1941 2050	3.8697 6503	78
79	2.6681 3327	2.9412 9450	3.2420 3230	3.9374 8592	79
80	2.7014 8494	2.9817 3730	3.2906 6279	4.0063 9192	80
81	2.7352 5350	3.0227 3618	3.3400 2273	4.0765 0378	81
82	2.7694 4417	3.0642 9881	3.3901 2307	4.1478 4260	82
83	2.8040 6222	3.1064 3291	3.4409 7492	4.2204 2984	83
84	2.8391 1300	3.1491 4637	3.4925 8954	4.2942 8737	84
85	2.8746 0191	3.1924 4713	3.5449 7838	4.3694 3740	85
86	2.9105 3444	3.2363 4328	3.5981 5306	4.4459 0255	86
87	2.9469 1612	3.2808 4300	3.6521 2535	4.5237 0584	87
88	2.9837 5257	3.3259 5459	3.7069 0723	4.6028 7070	88
89	3.0210 4948	3.3716 8646	3.7625 1084	4.6834 2093	89
90	3.0588 1260	3.4180 4715	3.8189 4851	4.7653 8080	90
91	3.0970 4775	3.4650 4530	3.8762 3273	4.8487 7496	91
92	3.1357 6085	3.5126 8967	3.9343 7622	4.9336 2853	92
93	3.1749 5786	3.5609 8916	3.9933 9187	5.0199 6703	93
94	3.2146 4483	3.6099 5276	4.0532 9275	5.1078 1645	94
95	3.2548 2789	3.6595 8961	4.1140 9214	5.1972 0324	95
96	3.2955 1324	3.7099 0897	4.1758 0352	5.2881 5429	96
97	3.3367 0716	3.7609 2021	4.2384 4057	5.3806 9699	97
98	3.3784 1600	3.8126 3287	4.3020 1718	5.4748 5919	98
99	3.4206 4620	3.8650 5657	4.3665 4744	5.5706 6923	99
100	3.4634 0427	3.9182 0110	4.4320 4565	5.6681 5594	100

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	0.275 1466	0.302 4742	0.329 7682	0.384 2553	51
52	0.280 5417	0.308 4051	0.336 2342	0.391 7897	52
53	0.285 9367	0.314 3360	0.342 7002	0.399 3241	53
54	0.291 3317	0.320 2668	0.349 1663	0.406 8586	54
55	0.296 7268	0.326 1977	0.355 6323	0.414 3930	55
56	0.302 1218	0.332 1286	0.362 0984	0.421 9274	56
57	0.307 5168	0.338 0594	0.368 5644	0.429 4618	57
58	0.312 9118	0.343 9903	0.375 0304	0.436 9962	58
59	0.318 3069	0.349 9212	0.381 4965	0.444 5307	59
60	0.323 7019	0.355 8520	0.387 9625	0.452 0651	60
61	0.329 0969	0.361 7829	0.394 4286	0.459 5995	61
62	0.334 4920	0.367 7138	0.400 8946	0.467 1339	62
63	0.339 8870	0.373 6446	0.407 3607	0.474 6683	63
64	0.345 2820	0.379 5755	0.413 8267	0.482 2027	64
65	0.350 6771	0.385 5064	0.420 2927	0.489 7372	65
66	0.356 0721	0.391 4372	0.426 7588	0.497 2716	66
67	0.361 4671	0.397 3681	0.433 2248	0.504 8060	67
68	0.366 8622	0.403 2990	0.439 6909	0.512 3404	68
69	0.372 2572	0.409 2298	0.446 1569	0.519 8748	69
70	0.377 6522	0.415 1607	0.452 6230	0.527 4093	70
71	0.383 0473	0.421 0916	0.459 0890	0.534 9437	71
72	0.388 4423	0.427 0224	0.465 5550	0.542 4781	72
73	0.393 8373	0.432 9533	0.472 0211	0.550 0125	73
74	0.399 2324	0.438 8842	0.478 4871	0.557 5469	74
75	0.404 6274	0.444 8150	0.484 9532	0.565 0813	75
76	0.410 0224	0.450 7459	0.491 4192	0.572 6158	76
77	0.415 4175	0.456 6768	0.497 8852	0.580 1502	77
78	0.420 8125	0.462 6076	0.504 3513	0.587 6846	78
79	0.426 2075	0.468 5385	0.510 8173	0.595 2190	79
80	0.431 6026	0.474 4694	0.517 2834	0.602 7534	80
81	0.436 9976	0.480 4002	0.523 7494	0.610 2878	81
82	0.442 3926	0.486 3311	0.530 2155	0.617 8223	82
83	0.447 7876	0.492 2620	0.536 6815	0.625 3567	83
84	0.453 1827	0.498 1928	0.543 1475	0.632 8911	84
85	0.458 5777	0.504 1237	0.549 6136	0.640 4255	85
86	0.463 9727	0.510 0546	0.556 0796	0.647 9599	86
87	0.469 3678	0.515 9854	0.562 5457	0.655 4944	87
88	0.474 7628	0.521 9163	0.569 0117	0.663 0288	88
89	0.480 1578	0.527 8472	0.575 4778	0.670 5632	89
90	0.485 5529	0.533 7780	0.581 9438	0.678 0976	90
91	0.490 9479	0.539 7089	0.588 4098	0.685 6320	91
92	0.496 3429	0.545 6398	0.594 8759	0.693 1664	92
93	0.501 7380	0.551 5706	0.601 3419	0.700 7009	93
94	0.507 1330	0.557 5015	0.607 8080	0.708 2353	94
95	0.512 5280	0.563 4324	0.614 2740	0.715 7697	95
96	0.517 9231	0.569 3633	0.620 7401	0.723 3041	96
97	0.523 3181	0.575 2941	0.627 2061	0.730 8385	97
98	0.528 7131	0.581 2250	0.633 6721	0.738 3730	98
99	0.534 1082	0.587 1559	0.640 1382	0.745 9074	99
100	0.539 5032	0.593 0867	0.646 6042	0.753 4418	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	2%	2¼%	2½%	2¾%	n
1	1.0200 0000	1.0225 0000	1.0250 0000	1.0275 0000	1
2	1.0404 0000	1.0455 0625	1.0506 2500	1.0557 5625	2
3	1.0612 0800	1.0690 3014	1.0768 9063	1.0847 8955	3
4	1.0824 3216	1.0930 8332	1.1038 1289	1.1146 2126	4
5	1.1040 8080	1.1176 7769	1.1314 0821	1.1452 7334	5
6	1.1261 6242	1.1428 2544	1.1596 9342	1.1767 6836	6
7	1.1486 8567	1.1685 3901	1.1886 8575	1.2091 2949	7
8	1.1716 5938	1.1948 3114	1.2184 0290	1.2423 8055	8
9	1.1950 9257	1.2217 1484	1.2488 6297	1.2765 4602	9
10	1.2189 9442	1.2492 0343	1.2800 8454	1.3116 5103	10
11	1.2433 7431	1.2773 1050	1.3120 8666	1.3477 2144	11
12	1.2682 4179	1.3060 4999	1.3448 8882	1.3847 8378	12
13	1.2936 0663	1.3354 3611	1.3785 1104	1.4228 6533	13
14	1.3194 7876	1.3654 8343	1.4129 7382	1.4619 9413	14
15	1.3458 6834	1.3962 0680	1.4482 9817	1.5021 9896	15
16	1.3727 8571	1.4276 2146	1.4845 0562	1.5435 0944	16
17	1.4002 4142	1.4597 4294	1.5216 1826	1.5859 5595	17
18	1.4282 4625	1.4925 8716	1.5596 5872	1.6295 6973	18
19	1.4568 1117	1.5261 7037	1.5986 5019	1.6743 8290	19
20	1.4859 4740	1.5605 0920	1.6386 1644	1.7204 2843	20
21	1.5156 6634	1.5956 2066	1.6795 8185	1.7677 4021	21
22	1.5459 7967	1.6315 2212	1.7215 7140	1.8163 5307	22
23	1.5768 9926	1.6682 3137	1.7646 1068	1.8663 0278	23
24	1.6084 3725	1.7057 6658	1.8087 2595	1.9176 2610	24
25	1.6406 0599	1.7441 4632	1.8539 4410	1.9703 6082	25
26	1.6734 1811	1.7833 8962	1.9002 9270	2.0245 4575	26
27	1.7068 8648	1.8235 1588	1.9478 0002	2.0802 2075	27
28	1.7410 2421	1.8645 4499	1.9964 9502	2.1374 2682	28
29	1.7758 4469	1.9064 9725	2.0464 0739	2.1962 0606	29
30	1.8113 6158	1.9493 9344	2.0975 6758	2.2566 0173	30
31	1.8475 8882	1.9932 5479	2.1500 0677	2.3186 5828	31
32	1.8845 4059	2.0381 0303	2.2037 5694	2.3824 2138	32
33	1.9222 3140	2.0839 6034	2.2588 5086	2.4479 3797	33
34	1.9606 7603	2.1308 4945	2.3153 2213	2.5152 5626	34
35	1.9998 8955	2.1787 9356	2.3732 0519	2.5844 2581	35
36	2.0398 8734	2.2278 1642	2.4325 3532	2.6554 9752	36
37	2.0806 8509	2.2779 4229	2.4933 4870	2.7285 2370	37
38	2.1222 9879	2.3291 9599	2.5556 8242	2.8035 5810	38
39	2.1647 4477	2.3816 0290	2.6195 7448	2.8806 5595	39
40	2.2080 3966	2.4351 8897	2.6850 6384	2.9598 7399	40
41	2.2522 0046	2.4899 8072	2.7521 9043	3.0412 7052	41
42	2.2972 4447	2.5460 0528	2.8209 9520	3.1249 0546	42
43	2.3431 8936	2.6032 9040	2.8915 2008	3.2108 4036	43
44	2.3900 5314	2.6618 6444	2.9638 0808	3.2991 3847	44
45	2.4378 5421	2.7217 5639	3.0379 0328	3.3898 6478	45
46	2.4866 1129	2.7829 9590	3.1138 5086	3.4830 8606	46
47	2.5363 4351	2.8456 1331	3.1916 9713	3.5788 7093	47
48	2.5870 7039	2.9096 3961	3.2714 8956	3.6772 8988	48
49	2.6388 1179	2.9751 0650	3.3532 7680	3.7784 1535	49
50	2.6915 8803	3.0420 4640	3.4371 0872	3.8823 2177	50

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	2%	2¼%	2½%	2¾%	n
1	0.008 6002	0.009 6633	0.010 7239	0.011 7818	1
2	0.017 2003	0.019 3266	0.021 4477	0.023 5637	2
3	0.025 8005	0.028 9900	0.032 1716	0.035 3455	3
4	0.034 4007	0.038 6533	0.042 8955	0.047 1273	4
5	0.043 0009	0.048 3166	0.053 6193	0.058 9092	5
6	0.051 6010	0.057 9799	0.064 3432	0.070 6910	6
7	0.060 2012	0.067 6432	0.075 0671	0.082 4728	7
8	0.068 8014	0.077 3065	0.085 7909	0.094 2546	8
9	0.077 4015	0.086 9699	0.096 5148	0.106 0365	9
10	0.086 0017	0.096 6332	0.107 2387	0.117 8183	10
11	0.094 6019	0.106 2965	0.117 9625	0.129 6001	11
12	0.103 2021	0.115 9598	0.128 6864	0.141 3820	12
13	0.111 8022	0.125 6231	0.139 4103	0.153 1638	13
14	0.120 4024	0.135 2864	0.150 1341	0.164 9456	14
15	0.129 0026	0.144 9498	0.160 8580	0.176 7275	15
16	0.137 6027	0.154 6131	0.171 5818	0.188 5093	16
17	0.146 2029	0.164 2764	0.182 3057	0.200 2911	17
18	0.154 8031	0.173 9397	0.193 0296	0.212 0729	18
19	0.163 4033	0.183 6030	0.203 7534	0.223 8548	19
20	0.172 0034	0.193 2663	0.214 4773	0.235 6366	20
21	0.180 6036	0.202 9297	0.225 2012	0.247 4184	21
22	0.189 2038	0.212 5930	0.235 9250	0.259 2003	22
23	0.197 8040	0.222 2563	0.246 6489	0.270 9821	23
24	0.206 4041	0.231 9196	0.257 3728	0.282 7639	24
25	0.215 0043	0.241 5829	0.268 0966	0.294 5458	25
26	0.223 6045	0.251 2462	0.278 8205	0.306 3276	26
27	0.232 2046	0.260 9096	0.289 5444	0.318 1094	27
28	0.240 8048	0.270 5729	0.300 2682	0.329 8913	28
29	0.249 4050	0.280 2362	0.310 9921	0.341 6731	29
30	0.258 0052	0.289 8995	0.321 7160	0.353 4549	30
31	0.266 6053	0.299 5628	0.332 4398	0.365 2367	31
32	0.275 2055	0.309 2261	0.343 1637	0.377 0186	32
33	0.283 8057	0.318 8894	0.353 8876	0.388 8004	33
34	0.292 4058	0.328 5528	0.364 6114	0.400 5822	34
35	0.301 0060	0.338 2161	0.375 3353	0.412 3641	35
36	0.309 6062	0.347 8794	0.386 0592	0.424 1459	36
37	0.318 2064	0.357 5427	0.396 7830	0.435 9277	37
38	0.326 8065	0.367 2060	0.407 5069	0.447 7096	38
39	0.335 4067	0.376 8694	0.418 2308	0.459 4914	39
40	0.344 0069	0.386 5327	0.428 9546	0.471 2732	40
41	0.352 6070	0.396 1960	0.439 6785	0.483 0551	41
42	0.361 2072	0.405 8593	0.450 4023	0.494 8369	42
43	0.369 8074	0.415 5226	0.461 1262	0.506 6187	43
44	0.378 4076	0.425 1859	0.471 8501	0.518 4005	44
45	0.387 0077	0.434 8493	0.482 5739	0.530 1824	45
46	0.395 6079	0.444 5126	0.493 2978	0.541 9642	46
47	0.404 2081	0.454 1759	0.504 0217	0.553 7460	47
48	0.412 8082	0.463 8392	0.514 7455	0.565 5279	48
49	0.421 4084	0.473 5025	0.525 4694	0.577 3097	49
50	0.430 0086	0.483 1658	0.536 1933	0.589 0915	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	2%	2¼%	2½%	2¾%	n
51	2.7454 1979	3.1104 9244	3.5230 3644	3.9890 8562	51
52	2.8003 2819	3.1804 7852	3.6111 1235	4.0987 8547	52
53	2.8563 3475	3.2520 3929	3.7013 9016	4.2115 0208	53
54	2.9134 6144	3.3252 1017	3.7939 2491	4.3273 1838	54
55	2.9717 3067	3.4000 2740	3.8887 7303	4.4463 1964	55
56	3.0311 6529	3.4765 2802	3.9859 9236	4.5685 9343	56
57	3.0917 8859	3.5547 4990	4.0856 4217	4.6942 2975	57
58	3.1536 2436	3.6347 3177	4.1877 8322	4.8233 2107	58
59	3.2166 9685	3.7165 1324	4.2924 7780	4.9559 6239	59
60	3.2810 3079	3.8001 3479	4.3997 8975	5.0922 5136	60
61	3.3466 5140	3.8856 3782	4.5097 8449	5.2322 8827	61
62	3.4135 8443	3.9730 6467	4.6225 2910	5.3761 7620	62
63	3.4818 5612	4.0624 5862	4.7380 9233	5.5240 2105	63
64	3.5514 9324	4.1538 6394	4.8565 4464	5.6759 3162	64
65	3.6225 2311	4.2473 2588	4.9779 5826	5.8320 1974	65
66	3.6949 7357	4.3428 9071	5.1024 0721	5.9924 0029	66
67	3.7688 7304	4.4406 0576	5.2299 6739	6.1571 9130	67
68	3.8442 5050	4.5405 1939	5.3607 1658	6.3265 1406	68
69	3.9211 3551	4.6426 8107	5.4947 3449	6.5004 9319	69
70	3.9995 5822	4.7471 4140	5.6321 0286	6.6792 5676	70
71	4.0795 4939	4.8539 5208	5.7729 0543	6.8629 3632	71
72	4.1611 4038	4.9631 6600	5.9172 2806	7.0516 6706	72
73	4.2443 6318	5.0748 3723	6.0651 5876	7.2455 8791	73
74	4.3292 5045	5.1890 2107	6.2167 8773	7.4448 4158	74
75	4.4158 3546	5.3057 7405	6.3722 0743	7.6495 7472	75
76	4.5041 5216	5.4251 5396	6.5315 1261	7.8599 3802	76
77	4.5942 3521	5.5472 1993	6.6948 0043	8.0760 8632	77
78	4.6861 1991	5.6720 3237	6.8621 7044	8.2981 7869	78
79	4.7798 4231	5.7996 5310	7.0337 2470	8.5263 7861	79
80	4.8754 3916	5.9301 4530	7.2095 6782	8.7608 5402	80
81	4.9729 4794	6.0635 7357	7.3898 0701	9.0017 7751	81
82	5.0724 0690	6.2000 0397	7.5745 5219	9.2493 2639	82
83	5.1738 5504	6.3395 0406	7.7639 1599	9.5036 8286	83
84	5.2773 3214	6.4821 4290	7.9580 1389	9.7650 3414	84
85	5.3828 7878	6.6279 9112	8.1569 6424	10.0335 7258	85
86	5.4905 3636	6.7771 2092	8.3608 8834	10.3094 9583	86
87	5.6003 4708	6.9296 0614	8.5699 1055	10.5930 0696	87
88	5.7123 5402	7.0855 2228	8.7841 5832	10.8843 1465	88
89	5.8266 0110	7.2449 4653	9.0037 6228	11.1836 3331	89
90	5.9431 3313	7.4079 5782	9.2288 5633	11.4911 8322	90
91	6.0619 9579	7.5746 3688	9.4595 7774	11.8071 9076	91
92	6.1832 3570	7.7450 6621	9.6960 6718	12.1318 8851	92
93	6.3069 0042	7.9193 3020	9.9384 6886	12.4655 1544	93
94	6.4330 3843	8.0975 1512	10.1869 3058	12.8083 1711	94
95	6.5616 9920	8.2797 0921	10.4416 0385	13.1605 4584	95
96	6.6929 3318	8.4660 0267	10.7026 4395	13.5224 6085	96
97	6.8267 9184	8.6564 8773	10.9702 1004	13.8943 2852	97
98	6.9633 2768	8.8512 5871	11.2444 6530	14.2764 2255	98
99	7.1025 9423	9.0504 1203	11.5255 7693	14.6690 2417	99
100	7.2446 4612	9.2540 4630	11.8137 1635	15.0724 2234	100

Logarithm of Amount of 1 at Compound Interest

$$log\ (1+i)^n$$

n	2%	2¼%	2½%	2¾%	n
51	0.438 6088	0.492 8292	0.546 9171	0.600 8734	51
52	0.447 2089	0.502 4925	0.557 6410	0.612 6552	52
53	0.455 8091	0.512 1558	0.568 3649	0.624 4370	53
54	0.464 4093	0.521 8191	0.579 0887	0.636 2188	54
55	0.473 0094	0.531 4824	0.589 8126	0.648 0007	55
56	0.481 6096	0.541 1457	0.600 5365	0.659 7825	56
57	0.490 2098	0.550 8091	0.611 2603	0.671 5643	57
58	0.498 8100	0.560 4724	0.621 9842	0.683 3462	58
59	0.507 4101	0.570 1357	0.632 7081	0.695 1280	59
60	0.516 0103	0.579 7990	0.643 4319	0.706 9098	60
61	0.524 6105	0.589 4623	0.654 1558	0.718 6917	61
62	0.533 2107	0.599 1256	0.664 8797	0.730 4735	62
63	0.541 8108	0.608 7890	0.675 6035	0.742 2553	63
64	0.550 4110	0.618 4523	0.686 3274	0.754 0372	64
65	0.559 0112	0.628 1156	0.697 0513	0.765 8190	65
66	0.567 6113	0.637 7789	0.707 7751	0.777 6008	66
67	0.576 2115	0.647 4422	0.718 4990	0.789 3826	67
68	0.584 8117	0.657 1055	0.729 2228	0.801 1645	68
69	0.593 4119	0.666 7689	0.739 9467	0.812 9463	69
70	0.602 0120	0.676 4322	0.750 6706	0.824 7281	70
71	0.610 6122	0.686 0955	0.761 3944	0.836 5100	71
72	0.619 2124	0.695 7588	0.772 1183	0.848 2918	72
73	0.627 8125	0.705 4221	0.782 8422	0.860 0736	73
74	0.636 4127	0.715 0854	0.793 5660	0.871 8555	74
75	0.645 0129	0.724 7488	0.804 2899	0.883 6373	75
76	0.653 6131	0.734 4121	0.815 0138	0.895 4191	76
77	0.662 2132	0.744 0754	0.825 7376	0.907 2009	77
78	0.670 8134	0.753 7387	0.836 4615	0.918 9828	78
79	0.679 4136	0.763 4020	0.847 1854	0.930 7646	79
80	0.688 0137	0.773 0653	0.857 9092	0.942 5464	80
81	0.696 6139	0.782 7287	0.868 6331	0.954 3283	81
82	0.705 2141	0.792 3920	0.879 3570	0.966 1101	82
83	0.713 8143	0.802 0553	0.890 0808	0.977 8919	83
84	0.722 4144	0.811 7186	0.900 8047	0.989 6738	84
85	0.731 0146	0.821 3819	0.911 5286	1.001 4556	85
86	0.739 6148	0.831 0452	0.922 2524	1.013 2374	86
87	0.748 2149	0.840 7086	0.932 9763	1.025 0193	87
88	0.756 8151	0.850 3719	0.943 7002	1.036 8011	88
89	0.765 4153	0.860 0352	0.954 4240	1.048 5829	89
90	0.774 0155	0.869 6985	0.965 1479	1.060 3647	90
91	0.782 6156	0.879 3618	0.975 8718	1.072 1466	91
92	0.791 2158	0.889 0251	0.986 5956	1.083 9284	92
93	0.799 8160	0.898 6885	0.997 3195	1.095 7102	93
94	0.808 4161	0.908 3518	1.008 0433	1.107 4921	94
95	0.817 0163	0.918 0151	1.018 7672	1.119 2739	95
96	0.825 6165	0.927 6784	1.029 4911	1.131 0557	96
97	0.834 2167	0.937 3417	1.040 2149	1.142 8376	97
98	0.842 8168	0.947 0050	1.050 9388	1.154 6194	98
99	0.851 4170	0.956 6684	1.061 6627	1.166 4012	99
100	0.860 0172	0.966 3317	1.072 3865	1.178 1831	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	3%	3½%	4%	4½%	n
1	1.0300 0000	1.0350 0000	1.0400 0000	1.0450 0000	1
2	1.0609 0000	1.0712 2500	1.0816 0000	1.0920 2500	2
3	1.0927 2700	1.1087 1788	1.1248 6400	1.1411 6613	3
4	1.1255 0881	1.1475 2300	1.1698 5856	1.1925 1860	4
5	1.1592 7407	1.1876 8631	1.2166 5290	1.2461 8194	5
6	1.1940 5230	1.2292 5533	1.2653 1902	1.3022 6012	6
7	1.2298 7387	1.2722 7926	1.3159 3178	1.3608 6183	7
8	1.2667 7008	1.3168 0904	1.3685 6905	1.4221 0061	8
9	1.3047 7318	1.3628 9735	1.4233 1181	1.4860 9514	9
10	1.3439 1638	1.4105 9876	1.4802 4428	1.5529 6942	10
11	1.3842 3387	1.4599 6972	1.5394 5406	1.6228 5305	11
12	1.4257 6089	1.5110 6866	1.6010 3222	1.6958 8143	12
13	1.4685 3371	1.5639 5606	1.6650 7351	1.7721 9610	13
14	1.5125 8972	1.6186 9452	1.7316 7645	1.8519 4492	14
15	1.5579 6742	1.6753 4883	1.8009 4351	1.9352 8244	15
16	1.6047 0644	1.7339 8604	1.8729 8125	2.0223 7015	16
17	1.6528 4763	1.7946 7555	1.9479 0050	2.1133 7681	17
18	1.7024 3306	1.8574 8920	2.0258 1652	2.2084 7877	18
19	1.7535 0605	1.9225 0132	2.1068 4918	2.3078 6031	19
20	1.8061 1123	1.9897 8886	2.1911 2314	2.4117 1402	20
21	1.8602 9457	2.0594 3147	2.2787 6807	2.5202 4116	21
22	1.9161 0341	2.1315 1158	2.3699 1879	2.6336 5201	22
23	1.9735 8651	2.2061 1448	2.4647 1554	2.7521 6635	23
24	2.0327 9411	2.2833 2849	2.5633 0416	2.8760 1383	24
25	2.0937 7793	2.3632 4498	2.6658 3633	3.0054 3446	25
26	2.1565 9127	2.4459 5856	2.7724 6978	3.1406 7901	26
27	2.2212 8901	2.5315 6711	2.8833 6858	3.2820 0956	27
28	2.2879 2768	2.6201 7196	2.9987 0332	3.4296 9999	28
29	2.3565 6551	2.7118 7798	3.1186 5145	3.5840 3649	29
30	2.4272 6247	2.8067 9370	3.2433 9751	3.7453 1813	30
31	2.5000 8035	2.9050 3148	3.3731 3341	3.9138 5745	31
32	2.5750 8276	3.0067 0759	3.5080 5875	4.0899 8104	32
33	2.6523 3524	3.1119 4235	3.6483 8110	4.2740 3018	33
34	2.7319 0530	3.2208 6033	3.7943 1634	4.4663 6154	34
35	2.8138 6245	3.3335 9045	3.9460 8899	4.6673 4781	35
36	2.8982 7833	3.4502 6611	4.1039 3255	4.8773 7846	36
37	2.9852 2668	3.5710 2543	4.2680 8986	5.0968 6049	37
38	3.0747 8348	3.6960 1132	4.4388 1345	5.3262 1921	38
39	3.1670 2698	3.8253 7171	4.6162 6599	5.5658 9908	39
40	3.2620 3779	3.9592 5972	4.8010 2063	5.8163 6454	40
41	3.3598 9893	4.0978 3381	4.9930 6145	6.0781 0094	41
42	3.4606 9589	4.2412 5799	5.1927 8391	6.3516 1548	42
43	3.5645 1677	4.3897 0202	5.4004 9527	6.6374 3818	43
44	3.6714 5227	4.5433 4160	5.6165 1508	6.9361 2290	44
45	3.7815 9584	4.7023 5855	5.8411 7568	7.2482 4843	45
46	3.8950 4372	4.8669 4110	6.0748 2271	7.5744 1961	46
47	4.0118 9503	5.0372 8404	6.3178 1562	7.9152 6849	47
48	4.1322 5188	5.2135 8898	6.5705 2824	8.2714 5557	48
49	4.2562 1944	5.3960 6459	6.8333 4937	8.6436 7107	49
50	4.3839 0602	5.5849 2686	7.1066 8335	9.0326 3627	50

Logarithm of Amount of 1 at Compound Interest

$\log (1+i)^n$

n	3%	3½%	4%	4½%	n
1	0.012 8372	0.014 9403	0.017 0333	0.019 1163	1
2	0.025 6744	0.029 8807	0.034 0667	0.038 2326	2
3	0.038 5117	0.044 8210	0.051 1000	0.057 3489	3
4	0.051 3489	0.059 7614	0.068 1334	0.076 4652	4
5	0.064 1861	0.074 7017	0.085 1667	0.095 5815	5
6	0.077 0233	0.089 6421	0.102 2000	0.114 6977	6
7	0.089 8606	0.104 5824	0.119 2334	0.133 8140	7
8	0.102 6978	0.119 5228	0.136 2667	0.152 9303	8
9	0.115 5350	0.134 4631	0.153 3001	0.172 0466	9
10	0.128 3722	0.149 4035	0.170 3334	0.191 1629	10
11	0.141 2095	0.164 3438	0.187 3667	0.210 2792	11
12	0.154 0467	0.179 2842	0.204 4001	0.229 3955	12
13	0.166 8839	0.194 2245	0.221 4334	0.248 5118	13
14	0.179 7211	0.209 1649	0.238 4668	0.267 6281	14
15	0.192 5584	0.224 1052	0.255 5001	0.286 7444	15
16	0.205 3956	0.239 0456	0.272 5334	0.305 8606	16
17	0.218 2328	0.253 9859	0.289 5668	0.324 9769	17
18	0.231 0700	0.268 9263	0.306 6001	0.344 0932	18
19	0.243 9073	0.283 8666	0.323 6334	0.363 2095	19
20	0.256 7445	0.298 8070	0.340 6668	0.382 3258	20
21	0.269 5817	0.313 7473	0.357 7001	0.401 4421	21
22	0.282 4189	0.328 6877	0.374 7335	0.420 5584	22
23	0.295 2562	0.343 6280	0.391 7668	0.439 6747	23
24	0.308 0934	0.358 5684	0.408 8001	0.458 7910	24
25	0.320 9306	0.373 5087	0.425 8335	0.477 9073	25
26	0.333 7678	0.388 4491	0.442 8668	0.497 0236	26
27	0.346 6051	0.403 3894	0.459 9002	0.516 1398	27
28	0.359 4423	0.418 3298	0.476 9335	0.535 2561	28
29	0.372 2795	0.433 2701	0.493 9668	0.554 3724	29
30	0.385 1167	0.448 2105	0.511 0002	0.573 4887	30
31	0.397 9540	0.463 1508	0.528 0335	0.592 6050	31
32	0.410 7912	0.478 0912	0.545 0669	0.611 7213	32
33	0.423 6284	0.493 0315	0.562 1002	0.630 8376	33
34	0.436 4656	0.507 9719	0.579 1335	0.649 9539	34
35	0.449 3029	0.522 9122	0.596 1669	0.669 0702	35
36	0.462 1401	0.537 8526	0.613 2002	0.688 1865	36
37	0.474 9773	0.552 7929	0.630 2336	0.707 3027	37
38	0.487 8145	0.567 7333	0.647 2669	0.726 4190	38
39	0.500 6518	0.582 6736	0.664 3002	0.745 5353	39
40	0.513 4890	0.597 6140	0.681 3336	0.764 6516	40
41	0.526 3262	0.612 5543	0.698 3669	0.783 7679	41
42	0.539 1634	0.627 4947	0.715 4003	0.802 8842	42
43	0.552 0007	0.642 4350	0.732 4336	0.822 0005	43
44	0.564 8379	0.657 3754	0.749 4669	0.841 1168	44
45	0.577 6751	0.672 3157	0.766 5003	0.860 2331	45
46	0.590 5123	0.687 2561	0.783 5336	0.879 3494	46
47	0.603 3496	0.702 1964	0.800 5669	0.898 4656	47
48	0.616 1868	0.717 1368	0.817 6003	0.917 5819	48
49	0.629 0240	0.732 0771	0.834 6336	0.936 6982	49
50	0.641 8612	0.747 0175	0.851 6670	0.955 8145	50

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	3%	3½%	4%	4½%	n
51	4.5154 2320	5.7803 9930	7.3909 5068	9.4391 0490	51
52	4.6508 8590	5.9827 1327	7.6865 8871	9.8638 6463	52
53	4.7904 1247	6.1921 0824	7.9940 5226	10.3077 3853	53
54	4.9341 2485	6.4088 3202	8.3138 1435	10.7715 8677	54
55	5.0821 4859	6.6331 4114	8.6463 6692	11.2563 0817	55
56	5.2346 1305	6.8653 0108	8.9922 2160	11.7628 4204	56
57	5.3916 5144	7.1055 8662	9.3519 1046	12.2921 6993	57
58	5.5534 0098	7.3542 8215	9.7259 8688	12.8453 1758	58
59	5.7200 0301	7.6116 8203	10.1150 2635	13.4233 5687	59
60	5.8916 0310	7.8780 9090	10.5196 2741	14.0274 0793	60
61	6.0683 5120	8.1538 2408	10.9404 1250	14.6586 4129	61
62	6.2504 0173	8.4392 0793	11.3780 2900	15.3182 8014	62
63	6.4379 1379	8.7345 8020	11.8331 5016	16.0076 0275	63
64	6.6310 5120	9.0402 9051	12.3064 7617	16.7279 4487	64
65	6.8299 8273	9.3567 0068	12.7987 3522	17.4807 0239	65
66	7.0348 8222	9.6841 8520	13.3106 8463	18.2673 3400	66
67	7.2459 2868	10.0231 3168	13.8431 1201	19.0893 6403	67
68	7.4633 0654	10.3739 4129	14.3968 3649	19.9483 8541	68
69	7.6872 0574	10.7370 2924	14.9727 0995	20.8460 6276	69
70	7.9178 2191	11.1128 2526	15.5716 1835	21.7841 3558	70
71	8.1553 5657	11.5017 7414	16.1944 8308	22.7644 2168	71
72	8.4000 1727	11.9043 3624	16.8422 6241	23.7888 2066	72
73	8.6520 1778	12.3209 8801	17.5159 5290	24.8593 1759	73
74	8.9115 7832	12.7522 2259	18.2165 9102	25.9779 8688	74
75	9.1789 2567	13.1985 5038	18.9452 5466	27.1469 9629	75
76	9.4542 9344	13.6604 9964	19.7030 6485	28.3686 1112	76
77	9.7379 2224	14.1386 1713	20.4911 8744	29.6451 9862	77
78	10.0300 5991	14.6334 6873	21.3108 3494	30.9792 3256	78
79	10.3309 6171	15.1456 4013	22.1632 6834	32.3732 9802	79
80	10.6408 9056	15.6757 3754	23.0497 9907	33.8300 9643	80
81	10.9601 1727	16.2243 8835	23.9717 9103	35.3524 5077	81
82	11.2889 2079	16.7922 4195	24.9306 6267	36.9433 1106	82
83	11.6275 8842	17.3799 7041	25.9278 8918	38.6057 6006	83
84	11.9764 1607	17.9882 6938	26.9650 0475	40.3430 1926	84
85	12.3357 0855	18.6178 5881	28.0436 0494	42.1584 5513	85
86	12.7057 7981	19.2694 8387	29.1653 4914	44.0555 8561	86
87	13.0869 5320	19.9439 1580	30.3319 6310	46.0380 8696	87
88	13.4795 6180	20.6419 5285	31.5452 4163	48.1098 0087	88
89	13.8839 4865	21.3644 2120	32.8070 5129	50.2747 4191	89
90	14.3004 6711	22.1121 7595	34.1193 3334	52.5371 0530	90
91	14.7294 8112	22.8861 0210	35.4841 0668	54.9012 7503	91
92	15.1713 6556	23.6871 1568	36.9034 7094	57.3718 3241	92
93	15.6265 0652	24.5161 6473	38.3796 0978	59.9535 6487	93
94	16.0953 0172	25.3742 3049	39.9147 9417	62.6514 7529	94
95	16.5781 6077	26.2623 2856	41.5113 8594	65.4707 9168	95
96	17.0755 0559	27.1815 1006	43.1718 4138	68.4169 7730	96
97	17.5877 7076	28.1328 6291	44.8987 1503	71.4957 4128	97
98	18.1154 0388	29.1175 1311	46.6946 6363	74.7130 4964	98
99	18.6588 6600	30.1366 2607	48.5624 5018	78.0751 3687	99
100	19.2186 3198	31.1914 0798	50.5049 4818	81.5885 1803	100

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	3%	3½%	4%	4½%	n
51	0.654 6985	0.761 9578	0.868 7003	0.974 9308	51
52	0.667 5357	0.776 8982	0.885 7336	0.994 0471	52
53	0.680 3729	0.791 8385	0.902 7670	1.013 1634	53
54	0.693 2101	0.806 7789	0.919 8003	1.032 2797	54
55	0.706 0474	0.821 7192	0.936 8337	1.051 3960	55
56	0.718 8846	0.836 6596	0.953 8670	1.070 5123	56
57	0.731 7218	0.851 5999	0.970 9003	1.089 6286	57
58	0.744 5590	0.866 5403	0.987 9337	1.108 7448	58
59	0.757 3963	0.881 4806	1.004 9670	1.127 8611	59
60	0.770 2335	0.896 4210	1.022 0004	1.146 9774	60
61	0.783 0707	0.911 3613	1.039 0337	1.166 0937	61
62	0.795 9079	0.926 3017	1.056 0670	1.185 2100	62
63	0.808 7452	0.941 2420	1.073 1004	1.204 3263	63
64	0.821 5824	0.956 1824	1.090 1337	1.223 4426	64
65	0.834 4196	0.971 1227	1.107 1671	1.242 5589	65
66	0.847 2568	0.986 0631	1.124 2004	1.261 6752	66
67	0.860 0941	1.001 0034	1.141 2337	1.280 7915	67
68	0.872 9313	1.015 9438	1.158 2671	1.299 9077	68
69	0.885 7685	1.030 8841	1.175 3004	1.319 0240	69
70	0.898 6057	1.045 8245	1.192 3338	1.338 1403	70
71	0.911 4430	1.060 7648	1.209 3671	1.357 2566	71
72	0.924 2802	1.075 7052	1.226 4004	1.376 3729	72
73	0.937 1174	1.090 6455	1.243 4338	1.395 4892	73
74	0.949 9546	1.105 5859	1.260 4671	1.414 6055	74
75	0.962 7919	1.120 5262	1.277 5004	1.433 7218	75
76	0.975 6291	1.135 4666	1.294 5338	1.452 8381	76
77	0.988 4663	1.150 4069	1.311 5671	1.471 9544	77
78	1.001 3035	1.165 3473	1.328 6005	1.491 0707	78
79	1.014 1408	1.180 2876	1.345 6338	1.510 1869	79
80	1.026 9780	1.195 2280	1.362 6671	1.529 3032	80
81	1.039 8152	1.210 1683	1.379 7005	1.548 4195	81
82	1.052 6524	1.225 1087	1.396 7338	1.567 5358	82
83	1.065 4897	1.240 0490	1.413 7672	1.586 6521	83
84	1.078 3269	1.254 9894	1.430 8005	1.605 7684	84
85	1.091 1641	1.269 9297	1.447 8338	1.624 8847	85
86	1.104 0013	1.284 8701	1.464 8672	1.644 0010	86
87	1.116 8385	1.299 8104	1.481 9005	1.663 1173	87
88	1.129 6758	1.314 7508	1.498 9339	1.682 2336	88
89	1.142 5130	1.329 6911	1.515 9672	1.701 3498	89
90	1.155 3502	1.344 6315	1.533 0005	1.720 4661	90
91	1.168 1874	1.359 5718	1.550 0339	1.739 5824	91
92	1.181 0247	1.374 5122	1.567 0672	1.758 6987	92
93	1.193 8619	1.389 4525	1.584 1006	1.777 8150	93
94	1.206 6991	1.404 3929	1.601 1339	1.796 9313	94
95	1.219 5363	1.419 3332	1.618 1672	1.816 0476	95
96	1.232 3736	1.434 2736	1 635 2006	1.835 1639	96
97	1.245 2108	1.449 2139	1.652 2339	1.854 2802	97
98	1.258 0480	1.464 1543	1.669 2673	1.873 3965	98
99	1.270 8852	1.479 0946	1.686 3006	1.892 5127	99
100	1.283 7225	1.494 0350	1.703 3339	1.911 6290	100

Amount of 1 at Compound Interest

$(1+i)^n$

n	5%	5½%	6%	6½%	n
1	1.0500 0000	1.0550 0000	1.0600 0000	1.0650 0000	1
2	1.1025 0000	1.1130 2500	1.1236 0000	1.1342 2500	2
3	1.1576 2500	1.1742 4138	1.1910 1600	1.2079 4963	3
4	1.2155 0625	1.2388 2465	1.2624 7696	1.2864 6635	4
5	1.2762 8156	1.3069 6001	1.3382 2558	1.3700 8666	5
6	1.3400 9564	1.3788 4281	1.4185 1911	1.4591 4230	6
7	1.4071 0042	1.4546 7916	1.5036 3026	1.5539 8655	7
8	1.4774 5544	1.5346 8651	1.5938 4807	1.6549 9567	8
9	1.5513 2822	1.6190 9427	1.6894 7896	1.7625 7039	9
10	1.6288 9463	1.7081 4446	1.7908 4770	1.8771 3747	10
11	1.7103 3936	1.8020 9240	1.8982 9856	1.9991 5140	11
12	1.7958 5633	1.9012 0749	2.0121 9647	2.1290 9624	12
13	1.8856 4914	2.0057 7390	2.1329 2826	2.2674 8750	13
14	1.9799 3160	2.1160 9146	2.2609 0396	2.4148 7418	14
15	2.0789 2818	2.2324 7649	2.3965 5819	2.5718 4101	15
16	2.1828 7459	2.3552 6270	2.5403 5168	2.7390 1067	16
17	2.2920 1832	2.4848 0215	2.6927 7279	2.9170 4637	17
18	2.4066 1923	2.6214 6627	2.8543 3915	3.1066 5438	18
19	2.5269 5020	2.7656 4691	3.0255 9950	3.3085 8691	19
20	2.6532 9771	2.9177 5749	3.2071 3547	3.5236 4506	20
21	2.7859 6259	3.0782 3415	3.3995 6360	3.7526 8199	21
22	2.9252 6072	3.2475 3703	3.6035 3742	3.9966 0632	22
23	3.0715 2376	3.4261 5157	3.8197 4966	4.2563 8573	23
24	3.2250 9994	3.6145 8990	4.0489 3464	4.5330 5081	24
25	3.3863 5494	3.8133 9235	4.2918 7072	4.8276 9911	25
26	3.5556 7269	4.0231 2893	4.5493 8296	5.1414 9955	26
27	3.7334 5632	4.2444 0102	4.8223 4594	5.4756 9702	27
28	3.9201 2914	4.4778 4307	5.1116 8670	5.8316 1733	28
29	4.1161 3560	4.7241 2444	5.4183 8790	6.2106 7245	29
30	4.3219 4238	4.9839 5129	5.7434 9117	6.6143 6616	30
31	4.5380 3949	5.2580 6861	6.0881 0064	7.0442 9996	31
32	4.7649 4147	5.5472 6238	6.4533 8668	7.5021 7946	32
33	5.0031 8854	5.8523 6181	6.8405 8988	7.9898 2113	33
34	5.2533 4797	6.1742 4171	7.2510 2528	8.5091 5950	34
35	5.5160 1537	6.5138 2501	7.6860 8679	9.0622 5487	35
36	5.7918 1614	6.8720 8538	8.1472 5200	9.6513 0143	36
37	6.0814 0694	7.2500 5008	8.6360 8712	10.2786 3603	37
38	6.3854 7729	7.6488 0283	9.1542 5235	10.9467 4737	38
39	6.7047 5115	8.0694 8699	9.7035 0749	11.6582 8595	39
40	7.0399 8871	8.5133 0877	10.2857 1794	12.4160 7453	40
41	7.3919 8815	8.9815 4076	10.9028 6101	13.2231 1938	41
42	7.7615 8756	9.4755 2550	11.5570 3267	14.0826 2214	42
43	8.1496 6693	9.9966 7940	12.2504 5463	14.9979 9258	43
44	8.5571 5028	10.5464 9677	12.9854 8191	15.9728 6209	44
45	8.9850 0779	11.1265 5409	13.7646 1083	17.0110 9813	45
46	9.4342 5818	11.7385 1456	14.5904 8748	18.1168 1951	46
47	9.9059 7109	12.3841 3287	15.4659 1673	19.2944 1278	47
48	10.4012 6965	13.0652 6017	16.3938 7173	20.5485 4961	48
49	10.9213 3313	13.7838 4948	17.3775 0403	21.8842 0533	49
50	11.4673 9979	14.5419 6120	18.4201 5427	23.3066 7868	50

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	5%	5½%	6%	6½%	n
1	0.021 1893	0.023 2525	0.025 3059	0.027 3496	1
2	0.042 3786	0.046 5049	0.050 6117	0.054 6992	2
3	0.063 5679	0.069 7574	0.075 9176	0.082 0488	3
4	0.084 7572	0.093 0098	0.101 2235	0.109 3984	4
5	0.105 9465	0.116 2623	0.126 5293	0.136 7480	5
6	0.127 1358	0.139 5148	0.151 8352	0.164 0976	6
7	0.148 3251	0.162 7672	0.177 1411	0.191 4473	7
8	0.169 5144	0.186 0197	0.202 4469	0.218 7969	8
9	0.190 7037	0.209 2721	0.227 7528	0.246 1465	9
10	0.211 8930	0.232 5246	0.253 0587	0.273 4961	10
11	0.233 0823	0.255 7771	0.278 3645	0.300 8457	11
12	0.254 2716	0.279 0295	0.303 6704	0.328 1953	12
13	0.275 4609	0.302 2820	0.328 9762	0.355 5449	13
14	0.296 6502	0.325 5344	0.354 2821	0.382 8946	14
15	0.317 8395	0.348 7869	0.379 5880	0.410 2441	15
16	0.339 0288	0.372 0394	0.404 8938	0.437 5937	16
17	0.360 2181	0.395 2918	0.430 1997	0.464 9433	17
18	0.381 4074	0.418 5443	0.455 5056	0.492 2929	18
19	0.402 5967	0.441 7967	0.480 8114	0.519 6425	19
20	0.423 7860	0.465 0492	0.506 1173	0.546 9922	20
21	0.444 9753	0.488 3017	0.531 4232	0.574 3418	21
22	0.466 1646	0.511 5541	0.556 7290	0.601 6914	22
23	0.487 3539	0.534 8066	0.582 0349	0.629 0410	23
24	0.508 5432	0.558 0590	0.607 3408	0.656 3906	24
25	0.529 7325	0.581 3115	0.632 6466	0.683 7402	25
26	0.550 9218	0.604 5639	0.657 9525	0.711 0898	26
27	0.572 1111	0.627 8164	0.683 2584	0.738 4394	27
28	0.593 3004	0.651 0689	0.708 5642	0.765 7890	28
29	0.614 4897	0.674 3213	0.733 8701	0.793 1386	29
30	0.635 6790	0.697 5738	0.759 1760	0.820 4882	30
31	0.656 8683	0.720 8262	0.784 4818	0.847 8378	31
32	0.678 0576	0.744 0787	0.809 7877	0.875 1874	32
33	0.699 2469	0.767 3312	0.835 0936	0.902 5371	33
34	0.720 4362	0.790 5836	0.860 3994	0.929 8867	34
35	0.741 6255	0.813 8361	0.885 7053	0.957 2363	35
36	0.762 8148	0.837 0885	0.911 0112	0.984 5859	36
37	0.784 0041	0.860 3410	0.936 3170	1.011 9355	37
38	0.805 1934	0.883 5935	0.961 6229	1.039 2851	38
39	0.826 3827	0.906 8459	0.986 9287	1.066 6347	39
40	0.847 5720	0.930 0984	1.012 2346	1.093 9843	40
41	0.868 7613	0.953 3508	1.037 5405	1.121 3339	41
42	0.889 9506	0.976 6033	1.062 8463	1.148 6835	42
43	0.911 1399	0.999 8558	1.088 1522	1.176 0331	43
44	0.932 3292	1.023 1082	1.113 4581	1.203 3827	44
45	0.953 5185	1.046 3607	1.138 7639	1.230 7324	45
46	0.974 7078	1.069 6131	1.164 0698	1.258 0820	46
47	0.995 8971	1.092 8656	1.189 3757	1.285 4316	47
48	1.017 0864	1.116 1181	1.214 6815	1.312 7812	48
49	1.038 2757	1.139 3705	1.239 9874	1.340 1308	49
50	1.059 4650	1.162 6230	1.265 2933	1.367 4804	50

$(1+i)^n$

n	5%	5½%	6%	6½%	n
51	12.0407 6978	15.3417 6907	19.5253 6353	24.8216 1279	51
52	12.6428 0826	16.1855 6637	20.6968 8534	26.4350 1762	52
53	13.2749 4868	17.0757 7252	21.9386 9846	28.1532 9377	53
54	13.9386 9611	18.0149 4001	23.2550 2037	29.9832 5786	54
55	14.6356 3092	19.0057 6171	24.6503 2159	31.9321 6963	55
56	15.3674 1246	20.0510 7860	26.1293 4089	34.0077 6065	56
57	16.1357 8309	21.1538 8793	27.6971 0134	36.2182 6509	57
58	16.9425 7224	22.3173 5176	29.3589 2742	38.5724 5233	58
59	17.7897 0085	23.5448 0611	31.1204 6307	41.0796 6173	59
60	18.6791 8589	24.8397 7045	32.9876 9085	43.7498 3974	60
61	19.6131 4519	26.2059 5782	34.9669 5230	46.5935 7932	61
62	20.5938 0245	27.6472 8550	37.0649 6944	49.6221 6198	62
63	21.6234 9257	29.1678 8620	39.2888 6761	52.8476 0251	63
64	22.7046 6720	30.7721 1994	41.6461 9967	56.2826 9667	64
65	23.8399 0056	32.4645 8654	44.1449 7165	59.9410 7195	65
66	25.0318 9559	34.2501 3880	46.7936 6994	63.8372 4163	66
67	26.2834 9037	36.1338 9643	49.6012 9014	67.9866 6234	67
68	27.5976 6488	38.1212 6074	52.5773 6755	72.4057 9539	68
69	28.9775 4813	40.2179 3008	55.7320 0960	77.1121 7209	69
70	30.4264 2554	42.4299 1623	59.0759 3018	82.1244 6327	70
71	31.9477 4681	44.7635 6163	62.6204 8599	87.4625 5339	71
72	33.5451 3415	47.2255 5751	66.3777 1515	93.1476 1936	72
73	35.2223 9086	49.8229 6318	70.3603 7806	99.2022 1461	73
74	36.9835 1040	52.5632 2615	74.5820 0074	105.6503 5856	74
75	38.8326 8592	55.4542 0359	79.0569 2079	112.5176 3187	75
76	40.7743 2022	58.5041 8479	83.8003 3603	119.8312 7794	76
77	42.8130 3623	61.7219 1495	88.8283 5620	127.6203 1101	77
78	44.9536 8804	65.1166 2027	94.1580 5757	135.9156 3122	78
79	47.2013 7244	68.6980 3439	99.8075 4102	144.7501 4725	79
80	49.5614 4107	72.4764 2628	105.7959 9348	154.1589 0683	80
81	52.0395 1312	76.4626 2973	112.1437 5309	164.1792 3577	81
82	54.6414 8878	80.6680 7436	118.8723 7828	174.8508 8609	82
83	57.3735 6322	85.1048 1845	126.0047 2097	186.2161 9369	83
84	60.2422 4138	89.7855 8347	133.5650 0423	198.3202 4628	84
85	63.2543 5344	94.7237 9056	141.5789 0449	211.2110 6229	85
86	66.4170 7112	99.9335 9904	150.0736 3875	224.9397 8134	86
87	69.7379 2467	105.4299 4698	159.0780 5708	239.5608 6712	87
88	73.2248 2091	111.2285 9407	168.6227 4050	255.1323 2349	88
89	76.8860 6195	117.3461 6674	178.7401 0493	271.7159 2451	89
90	80.7303 6505	123.8002 0591	189.4645 1123	289.3774 5961	90
91	84.7668 8330	130.6092 1724	200.8323 8190	308.1869 9448	91
92	89.0052 2747	137.7927 2419	212.8823 2482	328.2191 4912	92
93	93.4554 8884	145.3713 2402	225.6552 6431	349.5533 9382	93
94	98.1282 6328	153.3667 4684	239.1945 8017	372.2743 6441	94
95	103.0346 7645	161.8019 1791	253.5462 5498	396.4721 9810	95
96	108.1864 1027	170.7010 2340	268.7590 3028	422.2428 9098	96
97	113.5957 3078	180.0895 7969	284.8845 7209	449.6886 7889	97
98	119.2755 1732	189.9945 0657	301.9776 4642	478.9184 4302	98
99	125.2392 9319	200.4442 0443	320.0963 0520	510.0481 4181	99
100	131.5012 5785	211.4686 3567	339.3020 8351	543.2012 7103	100

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	5%	5½%	6%	6½%	n
51	1.080 6543	1.185 8754	1.290 5991	1.394 8300	51
52	1.101 8436	1.209 1279	1.315 9050	1.422 1796	52
53	1.123 0329	1.232 3804	1.341 2109	1.449 5292	53
54	1.144 2222	1.255 6328	1.366 5167	1.476 8788	54
55	1.165 4115	1.278 8853	1.391 8226	1.504 2284	55
56	1.186 6007	1.302 1377	1.417 1285	1.531 5780	56
57	1.207 7900	1.325 3902	1.442 4343	1.558 9276	57
58	1.228 9793	1.348 6427	1.467 7402	1.586 2773	58
59	1.250 1686	1.371 8951	1.493 0461	1.613 6269	59
60	1.271 3579	1.395 1476	1.518 3519	1.640 9765	60
61	1.292 5472	1.418 4000	1.543 6578	1.668 3261	61
62	1.313 7365	1.441 6525	1.568 9636	1.695 6757	62
63	1.334 9258	1.464 9050	1.594 2695	1.723 0253	63
64	1.356 1151	1.488 1574	1.619 5754	1.750 3749	64
65	1.377 3044	1.511 4099	1.644 8812	1.777 7245	65
66	1.398 4937	1.534 6623	1.670 1871	1.805 0741	66
67	1.419 6830	1.557 9148	1.695 4930	1.832 4237	67
68	1.440 8723	1.581 1673	1.720 7988	1.859 7733	68
69	1.462 0616	1.604 4197	1.746 1047	1.887 1229	69
70	1.483 2509	1.627 6722	1.771 4106	1.914 4725	70
71	1.504 4402	1.650 9246	1.796 7164	1.941 8222	71
72	1.525 6295	1.674 1771	1.822 0223	1.969 1718	72
73	1.546 8188	1.697 4296	1.847 3282	1.996 5214	73
74	1.568 0081	1.720 6820	1.872 6340	2.023 8710	74
75	1.589 1974	1.743 9345	1.897 9399	2.051 2206	75
76	1.610 3867	1.767 1869	1.923 2458	2.078 5702	76
77	1.631 5760	1.790 4394	1.948 5516	2.105 9198	77
78	1.652 7653	1.813 6918	1.973 8575	2.133 2694	78
79	1.673 9546	1.836 9443	1.999 1634	2.160 6190	79
80	1.695 1439	1.860 1968	2.024 4692	2.187 9686	80
81	1.716 3332	1.883 4492	2.049 7751	2.215 3182	81
82	1.737 5225	1.906 7017	2.075 0810	2.242 6678	82
83	1.758 7118	1.929 9541	2.100 3868	2.270 0174	83
84	1.779 9011	1.953 2066	2.125 6927	2.297 3671	84
85	1.801 0904	1.976 4591	2.150 9986	2.324 7167	85
86	1.822 2797	1.999 7115	2.176 3044	2.352 0663	86
87	1.843 4690	2.022 9640	2.201 6103	2.379 4159	87
88	1.864 6583	2.046 2164	2.226 9161	2.406 7655	88
89	1.885 8476	2.069 4689	2.252 2220	2.434 1151	89
90	1.907 0369	2.092 7214	2.277 5279	2.461 4647	90
91	1.928 2262	2.115 9738	2.302 8337	2.488 8143	91
92	1.949 4155	2.139 2263	2.328 1396	2.516 1639	92
93	1.970 6048	2.162 4787	2.353 4455	2.543 5135	93
94	1.991 7941	2.185 7312	2.378 7513	2.570 8631	94
95	2.012 9834	2.208 9837	2.404 0572	2.598 2127	95
96	2.034 1727	2.232 2361	2.429 3631	2.625 5623	96
97	2.055 3620	2.255 4886	2.454 6689	2.652 9120	97
98	2.076 5513	2.278 7410	2.479 9748	2.680 2616	98
99	2.097 7406	2.301 9935	2.505 2807	2.707 6112	99
100	2.118 9299	2.325 2460	2.530 5865	2.734 9608	100

Amount of 1 at Compound Interest

$$(1+i)^n$$

n	7%	7½%	8%	8½%	n
1	1.0700 0000	1.0750 0000	1.0800 0000	1.0850 0000	1
2	1.1449 0000	1.1556 2500	1.1664 0000	1.1772 2500	2
3	1.2250 4300	1.2422 9688	1.2597 1200	1.2772 8913	3
4	1.3107 9601	1.3354 6914	1.3604 8896	1.3858 5870	4
5	1.4025 5173	1.4356 2933	1.4693 2808	1.5036 5669	5
6	1.5007 3035	1.5433 0153	1.5868 7432	1.6314 6751	6
7	1.6057 8148	1.6590 4914	1.7138 2427	1.7701 4225	7
8	1.7181 8618	1.7834 7783	1.8509 3021	1.9206 0434	8
9	1.8384 5921	1.9172 3866	1.9990 0463	2.0838 5571	9
10	1.9671 5136	2.0610 3156	2.1589 2500	2.2609 8344	10
11	2.1048 5195	2.2156 0893	2.3316 3900	2.4531 6703	11
12	2.2521 9159	2.3817 7960	2.5181 7012	2.6616 8623	12
13	2.4098 4500	2.5604 1307	2.7196 2373	2.8879 2956	13
14	2.5785 3415	2.7524 4405	2.9371 9362	3.1334 0357	14
15	2.7590 3154	2.9588 7735	3.1721 6911	3.3997 4288	15
16	2.9521 6375	3.1807 9315	3.4259 4264	3.6887 2102	16
17	3.1588 1521	3.4193 5264	3.7000 1805	4.0022 6231	17
18	3.3799 3228	3.6758 0409	3.9960 1950	4.3424 5461	18
19	3.6165 2754	3.9514 8940	4.3157 0106	4.7115 6325	19
20	3.8696 8446	4.2478 5110	4.6609 5714	5.1120 4612	20
21	4.1405 6237	4.5664 3993	5.0338 3372	5.5465 7005	21
22	4.4304 0174	4.9089 2293	5.4365 4041	6.0130 2350	22
23	4.7405 2986	5.2770 9215	5.8714 6365	6.5295 6002	23
24	5.0723 6695	5.6728 7406	6.3411 8074	7.0845 7360	24
25	5.4274 3264	6.0983 3961	6.8484 7520	7.6867 6236	25
26	5.8073 5292	6.5557 1508	7.3963 5321	8.3401 3716	26
27	6.2138 6763	7.0473 9371	7.9880 6147	9.0490 4881	27
28	6.6488 3836	7.5759 4824	8.6271 0639	9.8182 1796	28
29	7.1142 5705	8.1441 4436	9.3172 7490	10.6527 6649	29
30	7.6122 5504	8.7549 5519	10.0626 5689	11.5582 5164	30
31	8.1451 1290	9.4115 7683	10.8676 6944	12.5407 0303	31
32	8.7152 7080	10.1174 4509	11.7370 8300	13.6066 6279	32
33	9.3253 3975	10.8762 5347	12.6760 4964	14.7632 2913	33
34	9.9781 1354	11.6919 7248	13.6901 3361	16.0181 0360	34
35	10.6765 8148	12.5688 7042	14.7853 4429	17.3796 4241	35
36	11.4239 4219	13.5115 3570	15.9681 7184	18.8569 1201	36
37	12.2236 1814	14.5249 0088	17.2456 2558	20.4597 4953	37
38	13.0792 7141	15.6142 6844	18.6252 7563	22.1988 2824	38
39	13.9948 2041	16.7853 3858	20.1152 9768	24.0857 2865	39
40	14.9744 5784	18.0442 3897	21.7245 2150	26.1330 1558	40
41	16.0226 6989	19.3975 5689	23.4624 8322	28.3543 2190	41
42	17.1442 5678	20.8523 7366	25.3394 8187	30.7644 3927	42
43	18.3443 5475	22.4163 0168	27.3666 4042	33.3794 1660	43
44	19.6284 5959	24.0975 2431	29.5559 7166	36.2166 6702	44
45	21.0024 5176	25.9048 3863	31.9204 4939	39.2950 8371	45
46	22.4726 2338	27.8477 0153	34.4740 8534	42.6351 6583	46
47	24.0457 0702	29.9362 7915	37.2320 1217	46.2591 5492	47
48	25.7239 0651	32.1815 0008	40.2105 7314	50.1911 8309	48
49	27.5299 2997	34.5951 1259	43.4274 1899	54.4574 3365	49
50	29.4570 2506	37.1897 4603	46.9016 1251	59.0863 1551	50

Logarithm of Amount of 1 at Compound Interest

$log\ (1+i)^n$

n	7%	7½%	8%	8½%	n
1	0.029 3838	0.031 4085	0.033 4238	0.035 4297	1
2	0.058 7676	0.062 8169	0.066 8475	0.070 8595	2
3	0.088 1513	0.094 2254	0.100 2713	0.106 2892	3
4	0.117 5351	0.125 6339	0.133 6950	0.141 7190	4
5	0.146 9189	0.157 0423	0.167 1188	0.177 1487	5
6	0.176 3027	0.188 4508	0.200 5425	0.212 5784	6
7	0.205 6864	0.219 8592	0.233 9663	0.248 0082	7
8	0.235 0702	0.251 2677	0.267 3900	0.283 4379	8
9	0.264 4540	0.282 6762	0.300 8138	0.318 8676	9
10	0.293 8378	0.314 0846	0.334 2376	0.354 2974	10
11	0.323 2216	0.345 4931	0.367 6613	0.389 7271	11
12	0.352 6053	0.376 9016	0.401 0851	0.425 1569	12
13	0.381 9891	0.408 3100	0.434 5088	0.460 5866	13
14	0.411 3729	0.439 7185	0.467 9326	0.496 0163	14
15	0.440 7567	0.471 1270	0.501 3563	0.531 4461	15
16	0.470 1404	0.502 5354	0.534 7801	0.566 8758	16
17	0.499 5242	0.533 9439	0.568 2038	0.602 3055	17
18	0.528 9080	0.565 3524	0.601 6276	0.637 7353	18
19	0.558 2918	0.596 7608	0.635 0514	0.673 1650	19
20	0.587 6756	0.628 1693	0.668 4751	0.708 5948	20
21	0.617 0593	0.659 5777	0.701 8989	0.744 0245	21
22	0.646 4431	0.690 9862	0.735 3226	0.779 4542	22
23	0.675 8269	0.722 3947	0.768 7464	0.814 8840	23
24	0.705 2107	0.753 8031	0.802 1701	0.850 3137	24
25	0.734 5944	0.785 2116	0.835 5939	0.885 7435	25
26	0.763 9782	0.816 6201	0.869 0176	0.921 1732	26
27	0.793 3620	0.848 0285	0.902 4414	0.956 6029	27
28	0.822 7458	0.879 4370	0.935 8652	0.992 0327	28
29	0.852 1296	0.910 8455	0.969 2889	1.027 4624	29
30	0.881 5133	0.942 2539	1.002 7127	1.062 8921	30
31	0.910 8971	0.973 6624	1.036 1364	1.098 3219	31
32	0.940 2809	1.005 0709	1.069 5602	1.133 7516	32
33	0.969 6647	1.036 4793	1.102 9839	1.169 1814	33
34	0.999 0484	1.067 8878	1.136 4077	1.204 6111	34
35	1.028 4322	1.099 2962	1.169 8314	1.240 0408	35
36	1.057 8160	1.130 7047	1.203 2552	1.275 4706	36
37	1.087 1998	1.162 1132	1.236 6790	1.310 9003	37
38	1.116 5836	1.193 5216	1.270 1027	1.346 3301	38
39	1.145 9673	1.224 9301	1.303 5265	1.381 7598	39
40	1.175 3511	1.256 3386	1.336 9502	1.417 1895	40
41	1.204 7349	1.287 7470	1.370 3740	1.452 6193	41
42	1.234 1187	1.319 1555	1.403 7977	1.488 0490	42
43	1.263 5024	1.350 5640	1.437 2215	1.523 4787	43
44	1.292 8862	1.381 9724	1.470 6452	1.558 9085	44
45	1.322 2700	1.413 3809	1.504 0690	1.594 3382	45
46	1.351 6538	1.444 7894	1.537 4928	1.629 7680	46
47	1.381 0376	1.476 1978	1.570 9165	1.665 1977	47
48	1.410 4213	1.507 6063	1.604 3403	1.700 6274	48
49	1.439 8051	1.539 0147	1.637 7640	1.736 0572	49
50	1.469 1889	1.570 4232	1.671 1878	1.771 4869	50

$(1+i)^n$

n	7%	7½%	8%	8½%	n
51	31.5190 1682	39.9789 7698	50.6537 4151	64.1086 5233	51
52	33.7253 4799	42.9774 0026	54.7060 4084	69.5578 8778	52
53	36.0861 2235	46.2007 0528	59.0825 2410	75.4703 0824	53
54	38.6121 5092	49.6657 5817	63.8091 2603	81.8852 8444	54
55	41.3150 0148	53.3906 9004	68.9138 5611	88.8455 3362	55
56	44.2070 5159	57.3949 9179	74.4269 6460	96.3974 0398	56
57	47.3015 4520	61.6996 1617	80.3811 2177	104.5911 8332	57
58	50.6126 5336	66.3270 8739	86.8116 1151	113.4814 3390	58
59	54.1555 3910	71.3016 1894	93.7565 4043	123.1273 5578	59
60	57.9464 2683	76.6492 4036	101.2570 6367	133.5931 8102	60
61	62.0026 7671	82.3979 3339	109.3576 2876	144.9486 0141	61
62	66.3428 6408	88.5777 7839	118.1062 3906	157.2692 3253	62
63	70.9868 6457	95.2211 1177	127.5547 3819	170.6371 1729	63
64	75.9559 4509	102.3626 9515	137.7591 1724	185.1412 7226	64
65	81.2728 6124	110.0398 9729	148.7798 4662	200.8782 8041	65
66	86.9619 6153	118.2928 8959	160.6822 3435	217.9529 3424	66
67	93.0492 9884	127.1648 5631	173.5368 1310	236.4789 3365	67
68	99.5627 4976	136.7022 2053	187.4197 5815	256.5796 4301	68
69	106.5321 4224	146.9548 8707	202.4133 3880	278.3889 1267	69
70	113.9893 9220	157.9765 0360	218.6064 0590	302.0519 7024	70
71	121.9686 4965	169.8247 4137	236.0949 1837	327.7263 8771	71
72	130.5064 5513	182.5615 9697	254.9825 1184	355.5831 3067	72
73	139.6419 0699	196.2537 1675	275.3811 1279	385.8076 9678	73
74	149.4168 4047	210.9727 4550	297.4116 0181	418.6013 5100	74
75	159.8760 1931	226.7957 0141	321.2045 2996	454.1824 6584	75
76	171.0673 4066	243.8053 7902	346.9008 9236	492.7879 7543	76
77	183.0420 5451	262.0907 8245	374.6529 6374	534.6749 5335	77
78	195.8549 9832	281.7475 9113	404.6252 0084	580.1223 2438	78
79	209.5648 4820	302.8786 6046	436.9952 1691	629.4327 2195	79
80	224.2343 8758	325.5945 6000	471.9548 3426	682.9345 0332	80
81	239.9307 9471	350.0141 5200	509.7112 2101	740.9839 3610	81
82	256.7259 5034	376.2652 1340	550.4881 1869	803.9675 7067	82
83	274.6967 6686	404.4851 0440	594.5271 6818	872.3048 1418	83
84	293.9255 4054	434.8214 8723	642.0893 4164	946.4507 2338	84
85	314.5003 2838	467.4330 9878	693.4564 8897	1026.8990 3487	85
86	336.5153 5137	502.4905 8119	748.9330 0808	1114.1854 5283	86
87	360.0714 2596	540.1773 7477	808.8476 4873	1208.8912 1633	87
88	385.2764 2578	580.6906 7788	873.5554 6063	1311.6469 6971	88
89	412.2457 7558	624.2424 7872	943.4398 9748	1423.1369 6214	89
90	441.1029 7988	671.0606 6463	1018.9150 8928	1544.1036 0392	90
91	471.9801 8847	721.3902 1447	1100.4282 9642	1675.3524 1025	91
92	505.0188 0166	775.4944 8056	1188.4625 6013	1817.7573 6512	92
93	540.3701 1778	833.6565 6660	1283.5395 6494	1972.2667 4116	93
94	578.1960 2602	896.1808 0910	1386.2227 3014	2139.9094 1416	94
95	618.6697 4784	963.3943 6978	1497.1205 4855	2321.8017 1436	95
96	661.9766 3019	1035.6489 4751	1616.8901 9244	2519.1548 6008	96
97	708.3149 9430	1113.3226 1858	1746.2414 0783	2733.2830 2319	97
98	757.8970 4390	1196.8218 1497	1885.9407 2046	2965.6120 8016	98
99	810.9498 3698	1286.5834 5109	2036.8159 7809	3217.6891 0698	99
100	867.7163 2557	1383.0772 0993	2199.7612 5634	3491.1926 8107	100

$log\ (1+i)^n$

n	7%	7½%	8%	8½%	n
51	1.498 5727	1.601 8317	1.704 6115	1.806 9166	51
52	1.527 9564	1.633 2401	1.738 0353	1.842 3464	52
53	1.557 3402	1.664 6486	1.771 4590	1.877 7761	53
54	1.586 7240	1.696 0571	1.804 8828	1.913 2059	54
55	1.616 1078	1.727 4655	1.838 3066	1.948 6356	55
56	1.645 4916	1.758 8740	1.871 7303	1.984 0653	56
57	1.674 8753	1.790 2825	1.905 1541	2.019 4951	57
58	1.704 2591	1.821 6909	1.938 5778	2.054 9248	58
59	1.733 6429	1.853 0994	1.972 0016	2.090 3546	59
60	1.763 0267	1.884 5079	2.005 4253	2.125 7843	60
61	1.792 4104	1.915 9163	2.038 8491	2.161 2140	61
62	1.821 7942	1.947 3248	2.072 2728	2.196 6438	62
63	1.851 1780	1.978 7332	2.105 6966	2.232 0735	63
64	1.880 5618	2.010 1417	2.139 1204	2.267 5032	64
65	1.909 9456	2.041 5502	2.172 5441	2.302 9330	65
66	1.939 3293	2.072 9586	2.205 9679	2.338 3627	66
67	1.968 7131	2.104 3671	2.239 3916	2.373 7925	67
68	1.998 0969	2.135 7756	2.272 8154	2.409 2222	68
69	2.027 4807	2.167 1840	2.306 2391	2.444 6519	69
70	2.056 8644	2.198 5925	2.339 6629	2.480 0817	70
71	2.086 2482	2.230 0010	2.373 0866	2.515 5114	71
72	2.115 6320	2.261 4094	2.406 5104	2.550 9411	72
73	2.145 0158	2.292 8179	2.439 9342	2.586 3709	73
74	2.174 3995	2.324 2264	2.473 3579	2.621 8006	74
75	2.203 7833	2.355 6348	2.506 7817	2.657 2304	75
76	2.233 1671	2.387 0433	2.540 2054	2.692 6601	76
77	2.262 5509	2.418 4517	2.573 6292	2.728 0898	77
78	2.291 9347	2.449 8602	2.607 0529	2.763 5196	78
79	2.321 3184	2.481 2687	2.640 4767	2.798 9493	79
80	2.350 7022	2.512 6771	2.673 9004	2.834 3791	80
81	2.380 0860	2.544 0856	2.707 3242	2.869 8088	81
82	2.409 4698	2.575 4941	2.740 7480	2.905 2385	82
83	2.438 8535	2.606 9025	2.774 1717	2.940 6683	83
84	2.468 2373	2.638 3110	2.807 5955	2.976 0980	84
85	2.497 6211	2.669 7195	2.841 0192	3.011 5277	85
86	2.527 0049	2.701 1279	2.874 4430	3.046 9575	86
87	2.556 3887	2.732 5364	2.907 8667	3.082 3872	87
88	2.585 7724	2.763 9449	2.941 2905	3.117 8170	88
89	2.615 1562	2.795 3533	2.974 7142	3.153 2467	89
90	2.644 5400	2.826 7618	3.008 1380	3.188 6764	90
91	2.673 9238	2.858 1702	3.041 5617	3.224 1062	91
92	2.703 3075	2.889 5787	3.074 9855	3.259 5359	92
93	2.732 6913	2.920 9872	3.108 4093	3.294 9657	93
94	2.762 0751	2.952 3956	3.141 8330	3.330 3954	94
95	2.791 4589	2.983 8041	3.175 2568	3.365 8251	95
96	2.820 8427	3.015 2126	3.208 6805	3.401 2549	96
97	2.850 2264	3.046 6210	3.242 1043	3.436 6846	97
98	2.879 6102	3.078 0295	3.275 5280	3.472 1143	98
99	2.908 9940	3.109 4380	3.308 9518	3.507 5441	99
100	2.938 3778	3.140 8464	3.342 3755	3.542 9738	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.9975 0623	0.9970 9182	0.9966 7774	0.9958 5062	1
2	0.9950 1869	0.9941 9209	0.9933 6652	0.9917 1846	2
3	0.9925 3734	0.9913 0079	0.9900 6630	0.9876 0345	3
4	0.9900 6219	0.9884 1791	0.9867 7704	0.9835 0551	4
5	0.9875 9321	0.9855 4341	0.9834 9871	0.9794 2457	5
6	0.9851 3038	0.9826 7726	0.9802 3127	0.9753 6057	6
7	0.9826 7370	0.9798 1946	0.9769 7469	0.9713 1343	7
8	0.9802 2314	0.9769 6996	0.9737 2893	0.9672 8308	8
9	0.9777 7869	0.9741 2875	0.9704 9395	0.9632 6946	9
10	0.9753 4034	0.9712 9580	0.9672 6972	0.9592 7249	10
11	0.9729 0807	0.9684 7110	0.9640 5620	0.9552 9211	11
12	0.9704 8187	0.9656 5460	0.9608 5335	0.9513 2824	12
13	0.9680 6171	0.9628 4630	0.9576 6115	0.9473 8082	13
14	0.9656 4759	0.9600 4617	0.9544 7955	0.9434 4978	14
15	0.9632 3949	0.9572 5418	0.9513 0852	0.9395 3505	15
16	0.9608 3740	0.9544 7030	0.9481 4803	0.9356 3656	16
17	0.9584 4130	0.9516 9453	0.9449 9803	0.9317 5425	17
18	0.9560 5117	0.9489 2682	0.9418 5851	0.9278 8805	18
19	0.9536 6700	0.9461 6717	0.9387 2941	0.9240 3789	19
20	0.9512 8878	0.9434 1554	0.9356 1071	0.9202 0371	20
21	0.9489 1649	0.9406 7191	0.9325 0236	0.9163 8544	21
22	0.9465 5011	0.9379 3627	0.9294 0435	0.9125 8301	22
23	0.9441 8964	0.9352 0857	0.9263 1663	0.9087 9636	23
24	0.9418 3505	0.9324 8881	0.9232 3916	0.9050 2542	24
25	0.9394 8634	0.9297 7696	0.9201 7192	0.9012 7012	25
26	0.9371 4348	0.9270 7300	0.9171 1487	0.8975 3041	26
27	0.9348 0646	0.9243 7690	0.9140 6798	0.8938 0622	27
28	0.9324 7527	0.9216 8864	0.9110 3121	0.8900 9748	28
29	0.9301 4990	0.9190 0820	0.9080 0453	0.8864 0413	29
30	0.9278 3032	0.9163 3556	0.9049 8790	0.8827 2610	30
31	0.9255 1653	0.9136 7068	0.9019 8130	0.8790 6334	31
32	0.9232 0851	0.9110 1356	0.8989 8468	0.8754 1577	32
33	0.9209 0624	0.9083 6416	0.8959 9802	0.8717 8334	33
34	0.9186 0972	0.9057 2247	0.8930 2128	0.8681 6599	34
35	0.9163 1892	0.9030 8847	0.8900 5444	0.8645 6364	35
36	0.9140 3384	0.9004 6212	0.8870 9745	0.8609 7624	36
37	0.9117 5445	0.8978 4341	0.8841 5028	0.8574 0372	37
38	0.9094 8075	0.8952 3231	0.8812 1290	0.8538 4603	38
39	0.9072 1272	0.8926 2881	0.8782 8528	0.8503 0310	39
40	0.9049 5034	0.8900 3288	0.8753 6739	0.8467 7487	40
41	0.9026 9361	0.8874 4450	0.8724 5920	0.8432 6128	41
42	0.9004 4250	0.8848 6365	0.8695 6066	0.8397 6227	42
43	0.8981 9701	0.8822 9030	0.8666 7175	0.8362 7778	43
44	0.8959 5712	0.8797 2444	0.8637 9245	0.8328 0775	44
45	0.8937 2281	0.8771 6604	0.8609 2270	0.8293 5211	45
46	0.8914 9407	0.8746 1508	0.8580 6249	0.8259 1082	46
47	0.8892 7090	0.8720 7153	0.8552 1179	0.8224 8380	47
48	0.8870 5326	0.8695 3539	0.8523 7055	0.8190 7100	48
49	0.8848 4116	0.8670 0662	0.8495 3876	0.8156 7237	49
50	0.8826 3457	0.8644 8520	0.8467 1637	0.8122 8784	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	9.998 9156	9.998 7352	9.998 5548	9.998 1942	1
2	9.997 8312	9.997 4703	9.997 1095	9.996 3884	2
3	9.996 7469	9.996 2055	9.995 6643	9.994 5826	3
4	9.995 6625	9.994 9406	9.994 2190	9.992 7768	4
5	9.994 5781	9.993 6758	9.992 7738	9.990 9710	5
6	9.993 4937	9.992 4109	9.991 3286	9.989 1652	6
7	9.992 4093	9.991 1461	9.989 8833	9.987 3594	7
8	9.991 3249	9.989 8812	9.988 4381	9.985 5536	8
9	9.990 2406	9.988 6164	9.986 9928	9.983 7478	9
10	9.989 1562	9.987 3515	9.985 5476	9.981 9420	10
11	9.988 0718	9.986 0867	9.984 1024	9.980 1362	11
12	9.986 9874	9.984 8218	9.982 6571	9.978 3304	12
13	9.985 9030	9.983 5570	9.981 2119	9.976 5246	13
14	9.984 8187	9.982 2921	9.979 7666	9.974 7188	14
15	9.983 7343	9.981 0273	9.978 3214	9.972 9130	15
16	9.982 6499	9.979 7624	9.976 8761	9.971 1072	16
17	9.981 5655	9.978 4976	9.975 4309	9.969 3014	17
18	9.980 4811	9.977 2327	9.973 9857	9.967 4956	18
19	9.979 3968	9.975 9679	9.972 5404	9.965 6898	19
20	9.978 3124	9.974 7030	9.971 0952	9.963 8840	20
21	9.977 2280	9.973 4382	9.969 6499	9.962 0782	21
22	9.976 1436	9.972 1733	9.968 2047	9.960 2724	22
23	9.975 0592	9.970 9085	9.966 7595	9.958 4666	23
24	9.973 9748	9.969 6436	9.965 3142	9.956 6608	24
25	9.972 8905	9.968 3788	9.963 8690	9.954 8550	25
26	9.971 8061	9.967 1139	9.962 4237	9.953 0492	26
27	9.970 7217	9.965 8491	9.960 9785	9.951 2434	27
28	9.969 6373	9.964 5842	9.959 5333	9.949 4376	28
29	9.968 5529	9.963 3194	9.958 0880	9.947 6318	29
30	9.967 4686	9.962 0545	9.956 6428	9.945 8260	30
31	9.966 3842	9.960 7897	9.955 1975	9.944 0202	31
32	9.965 2998	9.959 5248	9.953 7523	9.942 2144	32
33	9.964 2154	9.958 2600	9.952 3071	9.940 4086	33
34	9.963 1310	9.956 9951	9.950 8618	9.938 6028	34
35	9.962 0467	9.955 7303	9.949 4166	9.936 7970	35
36	9.960 9623	9.954 4655	9.947 9713	9.934 9912	36
37	9.959 8779	9.953 2006	9.946 5261	9.933 1854	37
38	9.958 7935	9.951 9358	9.945 0808	9.931 3796	38
39	9.957 7091	9.950 6709	9.943 6356	9.929 5738	39
40	9.956 6247	9.949 4061	9.942 1904	9.927 7680	40
41	9.955 5404	9.948 1412	9.940 7451	9.925 9622	41
42	9.954 4560	9.946 8764	9.939 2999	9.924 1564	42
43	9.953 3716	9.945 6115	9.937 8546	9.922 3506	43
44	9.952 2872	9.944 3467	9.936 4094	9.920 5448	44
45	9.951 2028	9.943 0818	9.934 9642	9.918 7390	45
46	9.950 1185	9.941 8170	9.933 5189	9.916 9332	46
47	9.949 0341	9.940 5521	9.932 0737	9.915 1274	47
48	9.947 9497	9.939 2873	9.930 6284	9.913 3216	48
49	9.946 8653	9.938 0224	9.929 1832	9.911 5158	49
50	9.945 7809	9.936 7576	9.927 7380	9.909 7100	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	0.8804 3349	0.8619 7112	0.8439 0336	0.8089 1735	51
52	0.8782 3790	0.8594 6435	0.8410 9969	0.8055 6084	52
53	0.8760 4778	0.8569 6487	0.8383 0534	0.8022 1827	53
54	0.8738 6312	0.8544 7266	0.8355 2027	0.7988 8956	54
55	0.8716 8391	0.8519 8769	0.8327 4446	0.7955 7467	55
56	0.8695 1013	0.8495 0995	0.8299 7787	0.7922 7353	56
57	0.8673 4178	0.8470 3942	0.8272 2047	0.7889 8608	57
58	0.8651 7883	0.8445 7608	0.8244 7222	0.7857 1228	58
59	0.8630 2128	0.8421 1989	0.8217 3311	0.7824 5207	59
60	0.8608 6911	0.8396 7085	0.8190 0310	0.7792 0538	60
61	0.8587 2230	0.8372 2893	0.8162 8216	0.7759 7216	61
62	0.8565 8085	0.8347 9412	0.8135 7026	0.7727 5236	62
63	0.8544 4474	0.8323 6638	0.8108 6737	0.7695 4591	63
64	0.8523 1395	0.8299 4571	0.8081 7346	0.7663 5278	64
65	0.8501 8848	0.8275 3207	0.8054 8850	0.7631 7289	65
66	0.8480 6831	0.8251 2545	0.8028 1246	0.7600 0620	66
67	0.8459 5343	0.8227 2584	0.8001 4531	0.7568 5265	67
68	0.8438 4382	0.8203 3320	0.7974 8702	0.7537 1218	68
69	0.8417 3947	0.8179 4752	0.7948 3756	0.7505 8474	69
70	0.8396 4037	0.8155 6878	0.7921 9690	0.7474 7028	70
71	0.8375 4650	0.8131 9695	0.7895 6502	0.7443 6874	71
72	0.8354 5786	0.8108 3202	0.7869 4188	0.7412 8008	72
73	0.8333 7442	0.8084 7397	0.7843 2745	0.7382 0423	73
74	0.8312 9618	0.8061 2278	0.7817 2171	0.7351 4114	74
75	0.8292 2312	0.8037 7843	0.7791 2463	0.7320 9076	75
76	0.8271 5523	0.8014 4089	0.7765 3618	0.7290 5304	76
77	0.8250 9250	0.7991 1015	0.7739 5632	0.7260 2792	77
78	0.8230 3491	0.7967 8619	0.7713 8504	0.7230 1536	78
79	0.8209 8246	0.7944 6899	0.7688 2230	0.7200 1529	79
80	0.8189 3512	0.7921 5853	0.7662 6807	0.7170 2768	80
81	0.8168 9289	0.7898 5479	0.7637 2233	0.7140 5246	81
82	0.8148 5575	0.7875 5774	0.7611 8505	0.7110 8959	82
83	0.8128 2369	0.7852 6738	0.7586 5619	0.7081 3901	83
84	0.8107 9670	0.7829 8368	0.7561 3574	0.7052 0067	84
85	0.8087 7476	0.7807 0662	0.7536 2366	0.7022 7453	85
86	0.8067 5787	0.7784 3618	0.7511 1993	0.6993 6052	86
87	0.8047 4600	0.7761 7234	0.7486 2451	0.6964 5861	87
88	0.8027 3915	0.7739 1509	0.7461 3739	0.6935 6874	88
89	0.8007 3731	0.7716 6440	0.7436 5853	0.6906 9086	89
90	0.7987 4046	0.7694 2026	0.7411 8790	0.6878 2493	90
91	0.7967 4859	0.7671 8264	0.7387 2548	0.6849 7088	91
92	0.7947 6168	0.7649 5153	0.7362 7125	0.6821 2868	92
93	0.7927 7973	0.7627 2691	0.7338 2516	0.6792 9827	93
94	0.7908 0273	0.7605 0876	0.7313 8720	0.6764 7960	94
95	0.7888 3065	0.7582 9706	0.7289 5735	0.6736 7263	95
96	0.7868 6349	0.7560 9179	0.7265 3556	0.6708 7731	96
97	0.7849 0124	0.7538 9294	0.7241 2182	0.6680 9359	97
98	0.7829 4388	0.7517 0048	0.7217 1610	0.6653 2141	98
99	0.7809 9140	0.7495 1439	0.7193 1837	0.6625 6074	99
100	0.7790 4379	0.7473 3467	0.7169 2861	0.6598 1153	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	9.944 6966	9.935 4927	9.926 2927	9.907 9042	51
52	9.943 6122	9.934 2279	9.924 8475	9.906 0984	52
53	9.942 5278	9.932 9630	9.923 4022	9.904 2926	53
54	9.941 4434	9.931 6982	9.921 9570	9.902 4868	54
55	9.940 3590	9.930 4333	9.920 5118	9.900 6810	55
56	9.939 2746	9.929 1685	9.919 0665	9.898 8751	56
57	9.938 1903	9.927 9036	9.917 6213	9.897 0693	57
58	9.937 1059	9.926 6388	9.916 1760	9.895 2635	58
59	9.936 0215	9.925 3739	9.914 7308	9.893 4577	59
60	9.934 9371	9.924 1091	9.913 2855	9.891 6519	60
61	9.933 8527	9.922 8442	9.911 8403	9.889 8461	61
62	9.932 7684	9.921 5794	9.910 3951	9.888 0403	62
63	9.931 6840	9.920 3145	9.908 9498	9.886 2345	63
64	9.930 5996	9.919 0497	9.907 5046	9.884 4287	64
65	9.929 5152	9.917 7848	9.906 0593	9.882 6229	65
66	9.928 4308	9.916 5200	9.904 6141	9.880 8171	66
67	9.927 3465	9.915 2551	9.903 1689	9.879 0113	67
68	9.926 2621	9.913 9903	9.901 7236	9.877 2055	68
69	9.925 1777	9.912 7254	9.900 2784	9.875 3997	69
70	9.924 0933	9.911 4606	9.898 8331	9.873 5939	70
71	9.923 0089	9.910 1957	9.897 3879	9.871 7881	71
72	9.921 9245	9.908 9309	9.895 9427	9.869 9823	72
73	9.920 8402	9.907 6661	9.894 4974	9.868 1765	73
74	9.919 7558	9.906 4012	9.893 0522	9.866 3707	74
75	9.918 6714	9.905 1364	9.891 6069	9.864 5649	75
76	9.917 5870	9.903 8715	9.890 1617	9.862 7591	76
77	9.916 5026	9.902 6067	9.888 7165	9.860 9533	77
78	9.915 4183	9.901 3418	9.887 2712	9.859 1475	78
79	9.914 3339	9.900 0770	9.885 8260	9.857 3417	79
80	9.913 2495	9.898 8121	9.884 3807	9.855 5359	80
81	9.912 1651	9.897 5473	9.882 9355	9.853 7301	81
82	9.911 0807	9.896 2824	9.881 4902	9.851 9243	82
83	9.909 9964	9.895 0176	9.880 0450	9.850 1185	83
84	9.908 9120	9.893 7527	9.878 5998	9.848 3127	84
85	9.907 8276	9.892 4879	9.877 1545	9.846 5069	85
86	9.906 7432	9.891 2230	9.875 7093	9.844 7011	86
87	9.905 6588	9.889 9582	9.874 2640	9.842 8953	87
88	9.904 5744	9.888 6933	9.872 8188	9.841 0895	88
89	9.903 4901	9.887 4285	9.871 3736	9.839 2837	89
90	9.902 4057	9.886 1636	9.869 9283	9.837 4779	90
91	9.901 3213	9.884 8988	9.868 4831	9.835 6721	91
92	9.900 2369	9.883 6339	9.867 0378	9.833 8663	92
93	9.899 1525	9.882 3691	9.865 5926	9.832 0605	93
94	9.898 0682	9.881 1042	9.864 1474	9.830 2547	94
95	9.896 9838	9.879 8394	9.862 7021	9.828 4489	95
96	9.895 8994	9.878 5745	9.861 2569	9.826 6431	96
97	9.894 8150	9.877 3097	9.859 8116	9.824 8373	97
98	9.893 7306	9.876 0448	9.858 3664	9.823 0315	98
99	9.892 6463	9.874 7800	9.856 9212	9.821 2257	99
100	9.891 5619	9.873 5151	9.855 4759	9.819 4199	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	0.7771 0104	0.7451 6128	0.7145 4681	0.6570 7372	101
102	0.7751 6313	0.7429 9421	0.7121 7290	0.6543 4727	102
104	0.7732 3006	0.7408 3345	0.7098 0688	0.6516 3214	103
104	0.7713 0180	0.7386 7897	0.7074 4872	0.6489 2827	104
105	0.7693 7836	0.7365 3075	0.7050 9839	0.6462 3562	105
106	0.7674 5971	0.7343 8879	0.7027 5587	0.6435 5415	106
107	0.7655 4584	0.7322 5305	0.7004 2114	0.6408 8380	107
108	0.7636 3675	0.7301 2352	0.6980 9416	0.6382 2453	108
109	0.7617 3242	0.7280 0019	0.6957 7491	0.6355 7630	109
110	0.7598 3284	0.7258 8303	0.6934 6336	0.6329 3905	110
111	0.7579 3799	0.7237 7203	0.6911 5950	0.6303 1275	111
112	0.7560 4787	0.7216 6716	0.6888 6329	0.6276 9734	112
113	0.7541 6247	0.7195 6842	0.6865 7470	0.6250 9279	113
114	0.7522 8176	0.7174 7578	0.6842 9372	0.6224 9904	114
115	0.7504 0575	0.7153 8923	0.6820 2032	0.6199 1606	115
116	0.7485 3441	0.7133 0875	0.6797 5448	0.6173 4379	116
117	0.7466 6774	0.7112 3431	0.6774 9616	0.6147 8220	117
118	0.7448 0573	0.7091 6591	0.6752 4534	0.6122 3123	118
119	0.7429 4836	0.7071 0353	0.6730 0200	0.6096 9086	119
120	0.7410 9562	0.7050 4714	0.6707 6611	0.6071 6102	120
121	0.7392 4750	0.7029 9673	0.6685 3765	0.6046 4168	121
122	0.7374 0399	0.7009 5229	0.6663 1660	0.6021 3279	122
123	0.7355 6508	0.6989 1379	0.6641 0292	0.5996 3431	123
124	0.7337 3075	0.6968 8122	0.6618 9660	0.5971 4620	124
125	0.7319 0100	0.6948 5456	0.6596 9761	0.5946 6842	125
126	0.7300 7581	0.6928 3379	0.6575 0592	0.5922 0091	126
127	0.7282 5517	0.6908 1890	0.6553 2152	0.5897 4365	127
128	0.7264 3907	0.6888 0988	0.6531 4437	0.5872 9658	128
129	0.7246 2750	0.6868 0669	0.6509 7445	0.5848 5966	129
130	0.7228 2045	0.6848 0933	0.6488 1175	0.5824 3286	130
131	0.7210 1791	0.6828 1778	0.6466 5623	0.5800 1613	131
132	0.7192 1986	0.6808 3202	0.6445 0787	0.5776 0942	132
133	0.7174 2629	0.6788 5203	0.6423 6665	0.5752 1270	133
134	0.7156 3720	0.6768 7780	0.6402 3254	0.5728 2593	134
135	0.7138 5257	0.6749 0932	0.6381 0552	0.5704 4906	135
136	0.7120 7239	0.6729 4656	0.6359 8557	0.5680 8205	136
137	0.7102 9664	0.6709 8950	0.6338 7266	0.5657 2486	137
138	0.7085 2533	0.6690 3814	0.6317 6677	0.5633 7745	138
139	0.7067 5843	0.6670 9246	0.6296 6788	0.5610 3979	139
140	0.7049 9595	0.6651 5243	0.6275 7596	0.5587 1182	140
141	0.7032 3785	0.6632 1804	0.6254 9099	0.5563 9351	141
142	0.7014 8414	0.6612 8928	0.6234 1295	0.5540 8483	142
143	0.6997 3480	0.6593 6613	0.6213 4181	0.5517 8572	143
144	0.6979 8983	0.6574 4857	0.6192 7755	0.5494 9615	144
145	0.6962 4921	0.6555 3659	0.6172 2015	0.5472 1609	145
146	0.6945 1292	0.6536 3017	0.6151 6958	0.5449 4548	146
147	0.6927 8097	0.6517 2929	0.6131 2583	0.5426 8429	147
148	0.6910 5334	0.6498 3394	0.6110 8887	0.5404 3249	148
149	0.6893 3001	0.6479 4410	0.6090 5867	0 5381 9003	149
150	0.6876 1098	0.6460 5976	0.6070 3522	0 5359 5688	150

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	9.890 4775	9.872 2503	9.854 0307	9.817 6141	101
102	9.889 3931	9.870 9854	9.852 5854	9.815 8083	102
103	9.888 3087	9.869 7206	9.851 1402	9.814 0025	103
104	9.887 2243	9.868 4557	9.849 6949	9.812 1967	104
105	9.886 1400	9.867 1909	9.848 2497	9.810 3909	105
106	9.885 0556	9.865 9260	9.846 8045	9.808 5851	106
107	9.883 9712	9.864 6612	9.845 3592	9.806 7793	107
108	9.882 8868	9.863 3964	9.843 9140	9.804 9735	108
109	9.881 8024	9.862 1315	9.842 4687	9.803 1677	109
110	9.880 7181	9.860 8667	9.841 0235	9.801 3619	110
111	9.879 6337	9.859 6018	9.839 5783	9.799 5561	111
112	9.878 5493	9.858 3370	9.838 1330	9.797 7503	112
113	9.877 4649	9.857 0721	9.836 6878	9.795 9445	113
114	9.876 3805	9.855 8073	9.835 2425	9.794 1387	114
115	9.875 2962	9.854 5424	9.833 7973	9.792 3329	115
116	9.874 2118	9.853 2776	9.832 3521	9.790 5271	116
117	9.873 1274	9.852 0127	9.830 9068	9.788 7213	117
118	9.872 0430	9.850 7479	9.829 4616	9.786 9155	118
119	9.870 9586	9.849 4830	9.828 0163	9.785 1097	119
120	9.869 8742	9.848 2182	9.826 5711	9.783 3039	120
121	9.868 7899	9.846 9533	9.825 1259	9.781 4981	121
122	9.867 7055	9.845 6885	9.823 6806	9.779 6923	122
123	9.866 6211	9.844 4236	9.822 2354	9.777 8865	123
124	9.865 5367	9.843 1588	9.820 7901	9.776 0807	124
125	9.864 4523	9.841 8939	9.819 3449	9.774 2749	125
126	9.863 3680	9.840 6291	9.817 8996	9.772 4691	126
127	9.862 2836	9.839 3642	9.816 4544	9.770 6633	127
128	9.861 1992	9.838 0994	9.815 0092	9.768 8575	128
129	9.860 1148	9.836 8345	9.813 5639	9.767 0517	129
130	9.859 0304	9.835 5697	9.812 1187	9.765 2459	130
131	9.857 9460	9.834 3048	9.810 6734	9.763 4401	131
132	9.856 8617	9.833 0400	9.809 2282	9.761 6343	132
133	9.855 7773	9.831 7751	9.807 7830	9.759 8285	133
134	9.854 6929	9.830 5103	9.806 3377	9.758 0227	134
135	9.853 6085	9.829 2454	9.804 8925	9.756 2169	135
136	9.852 5241	9.827 9806	9.803 4472	9.754 4111	136
137	9.851 4398	9.826 7157	9.802 0020	9.752 6053	137
138	9.850 3554	9.825 4509	9.800 5568	9.750 7995	138
139	9.849 2710	9.824 1860	9.799 1115	9.748 9937	139
140	9.848 1866	9.822 9212	9.797 6663	9.747 1879	140
141	9.847 1022	9.821 6563	9.796 2210	9.745 3821	141
142	9.846 0179	9.820 3915	9.794 7758	9.743 5763	142
143	9.844 9335	9.819 1267	9.793 3306	9.741 7705	143
144	9.843 8491	9.817 8618	9.791 8853	9.739 9647	144
145	9.842 7647	9.816 5970	9.790 4401	9.738 1589	145
146	9.841 6803	9.815 3321	9.788 9948	9.736 3531	146
147	9.840 5959	9.814 0673	9.787 5496	9.734 5473	147
148	9.839 5116	9.812 8024	9.786 1043	9.732 7415	148
149	9.838 4272	9.811 5376	9.784 6591	9.730 9357	149
150	9.837 3428	9.810 2727	9.783 2139	9.729 1299	150

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	0.6858 9624	0.6441 8090	0.6050 1849	0.5337 3299	151
152	0.6841 8578	0.6423 0750	0.6030 0847	0.5315 1833	152
153	0.6824 7958	0.6404 3956	0.6010 0512	0.5293 1286	153
154	0.6807 7764	0.6385 7704	0.5990 0842	0.5271 1654	154
155	0.6790 7994	0.6367 1994	0.5970 1836	0.5249 2934	155
156	0.6773 8647	0.6348 6824	0.5950 3491	0.5227 5121	156
157	0.6756 9723	0.6330 2193	0.5930 5805	0.5205 8211	157
158	0.6740 1220	0.6311 8098	0.5910 8776	0.5184 2202	158
159	0.6723 3137	0.6293 4539	0.5891 2401	0.5162 7089	159
160	0.6706 5473	0.6275 1514	0.5871 6679	0.5141 2869	160
161	0.6689 8228	0.6256 9021	0.5852 1607	0.5119 9538	161
162	0.6673 1399	0.6238 7058	0.5832 7183	0.5098 7091	162
163	0.6656 4987	0.6220 5625	0.5813 3405	0.5077 5527	163
164	0.6639 8989	0.6202 4720	0.5794 0271	0.5056 4840	164
165	0.6623 3406	0.6184 4341	0.5774 7778	0.5035 5027	165
166	0.6606 8235	0.6166 4486	0.5755 5925	0.5014 6085	166
167	0.6590 3476	0.6148 5154	0.5736 4710	0.4993 8010	167
168	0.6573 9129	0.6130 6344	0.5717 4129	0.4973 0798	168
169	0.6557 5191	0.6112 8054	0.5698 4182	0.4952 4447	169
170	0.6541 1661	0.6095 0282	0.5679 4866	0.4931 8951	170
171	0.6524 8540	0.6077 3027	0.5660 6178	0.4911 4308	171
172	0.6508 5826	0.6059 6288	0.5641 8118	0.4891 0514	172
173	0.6492 3517	0.6042 0063	0.5623 0682	0.4870 7566	173
174	0.6476 1613	0.6024 4350	0.5604 3870	0.4850 5460	174
175	0.6460 0112	0.6006 9149	0.5585 7677	0.4830 4192	175
176	0.6443 9015	0.5989 4456	0.5567 2104	0.4810 3760	176
177	0.6427 8319	0.5972 0272	0.5548 7147	0.4790 4159	177
178	0.6411 8024	0.5954 6595	0.5530 2804	0.4770 5387	178
179	0.6395 8129	0.5937 3422	0.5511 9074	0.4750 7439	179
180	0.6379 8632	0.5920 0753	0.5493 5954	0.4731 0313	180
181	0.6363 9533	0.5902 8586	0.5475 3442	0.4711 4005	181
182	0.6348 0831	0.5885 6920	0.5457 1537	0.4691 8511	182
183	0.6332 2525	0.5868 5754	0.5439 0237	0.4672 3828	183
184	0.6316 4613	0.5851 5085	0.5420 9538	0.4652 9953	184
185	0.6300 7096	0.5834 4912	0.5402 9440	0.4633 6883	185
186	0.6284 9971	0.5817 5234	0.5384 9940	0.4614 4614	186
187	0.6269 3238	0.5800 6050	0.5367 1037	0.4595 3142	187
188	0.6253 6895	0.5783 7357	0.5349 2728	0.4576 2465	188
189	0.6238 0943	0.5766 9156	0.5331 5011	0.4557 2580	189
190	0.6222 5380	0.5750 1443	0.5313 7885	0.4538 3482	190
191	0.6207 0204	0.5733 4218	0.5296 1347	0.4519 5168	191
192	0.6191 5416	0.5716 7480	0.5278 5396	0.4500 7637	192
193	0.6176 1013	0.5700 1226	0.5261 0029	0.4482 0883	193
194	0.6160 6996	0.5683 5456	0.5243 5245	0.4463 4904	194
195	0.6145 3362	0.5667 0168	0.5226 1041	0.4444 9697	195
196	0.6130 0112	0.5650 5361	0.5208 7417	0.4426 5258	196
197	0.6114 7244	0.5634 1033	0.5191 4369	0.4408 1585	197
198	0.6099 4757	0.5617 7183	0.5174 1896	0.4389 8674	198
199	0.6084 2650	0.5601 3809	0.5156 9996	0.4371 6522	199
200	0.6069 0923	0.5585 0911	0.5139 8667	0.4353 5125	200

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	9.836 2584	9.809 0079	9.781 7686	9.727 3241	151
152	9.835 1740	9.807 7430	9.780 3234	9.725 5183	152
153	9.834 0897	9.806 4782	9.778 8781	9.723 7125	153
154	9.833 0053	9.805 2133	9.777 4329	9.721 9067	154
155	9.831 9209	9.803 9485	9.775 9877	9.720 1009	155
156	9.830 8365	9.802 6836	9.774 5424	9.718 2951	156
157	9.829 7521	9.801 4188	9.773 0972	9.716 4893	157
158	9.828 6678	9.800 1539	9.771 6519	9.714 6835	158
159	9.827 5834	9.798 8891	9.770 2067	9.712 8777	159
160	9.826 4990	9.797 6242	9.768 7615	9.711 0719	160
161	9.825 4146	9.796 3594	9.767 3162	9.709 2661	161
162	9.824 3302	9.795 0945	9.765 8710	9.707 4603	162
163	9.823 2458	9.793 8297	9.764 4257	9.705 6545	163
164	9.822 1615	9.792 5648	9.762 9805	9.703 8487	164
165	9.821 0771	9.791 3000	9.761 5353	9.702 0429	165
166	9.819 9927	9.790 0351	9.760 0900	9.700 2371	166
167	9.818 9083	9.788 7703	9.758 6448	9.698 4312	167
168	9.817 8239	9.787 5054	9.757 1995	9.696 6254	168
169	9.816 7396	9.786 2406	9.755 7543	9.694 8196	169
170	9.815 6552	9.784 9757	9.754 3090	9.693 0138	170
171	9.814 5708	9.783 7109	9.752 8638	9.691 2080	171
172	9.813 4864	9.782 4460	9.751 4186	9.689 4022	172
173	9.812 4020	9.781 1812	9.749 9733	9.687 5964	173
174	9.811 3177	9.779 9163	9.748 5281	9.685 7906	174
175	9.810 2333	9.778 6515	9.747 0828	9.683 9848	175
176	9.809 1489	9.777 3866	9.745 6376	9.682 1790	176
177	9.808 0645	9.776 1218	9.744 1924	9.680 3732	177
178	9.806 9801	9.774 8569	9.742 7471	9.678 5674	178
179	9.805 8957	9.773 5921	9.741 3019	9.676 7616	179
180	9.804 8114	9.772 3273	9.739 8566	9.674 9558	180
181	9.803 7270	9.771 0624	9.738 4114	9.673 1500	181
182	9.802 5426	9.769 7976	9.736 9662	9.671 3442	182
183	9.801 5582	9.768 5327	9.735 5209	9.669 5384	183
184	9.800 4738	9.767 2679	9.734 0757	9.667 7326	184
185	9.799 3895	9.766 0030	9.732 6304	9.665 9268	185
186	9.798 3051	9.764 7382	9.731 1852	9.664 1210	186
187	9.797 2207	9.763 4733	9.729 7400	9.662 3152	187
188	9.796 1363	9.762 2085	9.728 2947	9.660 5094	188
189	9.795 0519	9.760 9436	9.726 8495	9.658 7036	189
190	9.793 9676	9.759 6788	9.725 4042	9.656 8978	190
191	9.792 8832	9.758 4139	9.723 9590	9.655 0920	191
192	9.791 7988	9.757 1491	9.722 5137	9.653 2862	192
193	9.790 7144	9.755 8842	9.721 0685	9.651 4804	193
194	9.789 6300	9.754 6194	9.719 6233	9.649 6746	194
195	9.788 5456	9.753 3545	9.718 1780	9.647 8688	195
196	9.787 4613	9.752 0897	9.716 7328	9.646 0630	196
197	9.786 3769	9.750 8248	9.715 2875	9.644 2572	197
198	9.785 2925	9.749 5600	9.713 8423	9.642 4514	198
199	9.784 2081	9.748 2951	9.712 3971	9.640 6456	199
200	9.783 1237	9.747 0303	9.710 9518	9.638 8398	200

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	0.9950 2488	0.9942 0050	0.9937 8882	0.9933 7748	1
2	0.9900 7450	0.9884 3463	0.9876 1622	0.9867 9882	2
3	0.9851 4876	0.9827 0220	0.9814 8196	0.9802 6373	3
4	0.9802 4752	0.9770 0302	0.9753 8580	0.9737 7192	4
5	0.9753 7067	0.9713 3688	0.9693 2750	0.9673 2310	5
6	0.9705 1808	0.9657 0361	0.9633 0683	0.9609 1699	6
7	0.9656 8963	0.9601 0301	0.9573 2356	0.9545 5330	7
8	0.9608 8520	0.9545 3489	0.9513 7745	0.9482 3175	8
9	0.9561 0468	0.9489 9907	0.9454 6827	0.9419 5207	9
10	0.9513 4794	0.9434 9534	0.9395 9580	0.9357 1398	10
11	0.9466 1489	0.9380 2354	0.9337 5980	0.9295 1720	11
12	0.9419 0534	0.9325 8347	0.9279 6005	0.9233 6145	12
13	0.9372 1924	0.9271 7495	0.9221 9632	0.9172 4648	13
14	0.9325 5646	0.9217 9780	0.9164 6840	0.9111 7200	14
15	0.9279 1688	0.9164 5183	0.9107 7604	0.9051 3775	15
16	0.9233 0037	0.9111 3686	0.9051 1905	0.8991 4346	16
17	0.9187 0684	0.9058 5272	0.8994 9719	0.8931 8886	17
18	0.9141 3616	0.9005 9923	0.8939 1025	0.8872 7371	18
19	0.9095 8822	0.8953 7620	0.8883 5802	0.8813 9772	19
20	0.9050 6290	0.8901 8346	0.8828 4027	0.8755 6065	20
21	0.9005 6010	0.8850 2084	0.8773 5679	0.8697 6224	21
22	0.8960 7971	0.8798 8816	0.8719 0736	0.8640 0222	22
23	0.8916 2160	0.8747 8525	0.8664 9179	0.8582 8035	23
24	0.8871 8567	0.8697 1193	0.8611 0985	0.8525 9638	24
25	0.8827 7181	0.8646 6803	0.8557 6135	0.8469 5004	25
26	0.8783 7991	0.8596 5339	0.8504 4606	0.8413 4110	26
27	0.8740 0986	0.8546 6782	0.8451 6378	0.8357 6931	27
28	0.8696 6155	0.8497 1118	0.8399 1432	0.8302 3441	28
29	0.8653 3488	0.8447 8327	0.8346 9746	0.8247 3617	29
30	0.8610 2973	0.8398 8395	0.8295 1300	0.8192 7434	30
31	0.8567 4600	0.8350 1304	0.8243 6075	0.8138 4868	31
32	0.8524 8358	0.8301 7038	0.8192 4050	0.8084 5896	32
33	0.8482 4237	0.8253 5581	0.8141 5205	0.8031 0492	33
34	0.8440 2226	0.8205 6915	0.8090 9520	0.7977 8635	34
35	0.8398 2314	0.8158 1026	0.8040 6976	0.7925 0299	35
36	0.8356 4492	0.8110 7897	0.7990 7554	0.7872 5463	36
37	0.8314 8748	0.8063 7511	0.7941 1234	0.7820 4102	37
38	0.8273 5073	0.8016 9854	0.7891 7997	0.7768 6194	38
39	0.8232 3455	0.7970 4908	0.7842 7823	0.7717 1716	39
40	0.8191 3886	0.7924 2660	0.7794 0693	0.7666 0645	40
41	0.8150 6354	0.7878 3092	0.7745 6590	0.7615 2959	41
42	0.8110 0850	0.7832 6189	0.7697 5493	0.7564 8635	42
43	0.8069 7363	0.7787 1936	0.7649 7384	0.7514 7650	43
44	0.8029 5884	0.7742 0317	0.7602 2245	0.7464 9984	44
45	0.7989 6402	0.7697 1318	0.7555 0057	0.7415 5613	45
46	0.7949 8907	0.7652 4923	0.7508 0802	0.7366 4516	46
47	0.7910 3390	0.7608 1116	0.7461 4462	0.7317 6672	47
48	0.7870 9841	0.7563 9884	0.7415 1018	0.7269 2058	48
49	0.7831 8250	0.7520 1210	0.7369 0453	0.7221 0654	49
50	0.7792 8607	0.7476 5080	0.7323 2748	0.7173 2437	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	9.997 8339	9.997 4740	9.997 3212	9.997 1143	1
2	9.995 6679	9.994 9480	9.994 6425	9.994 2286	2
3	9.993 5018	9.992 4219	9.991 9637	9.991 3429	3
4	9.991 3358	9.989 8959	9.989 2850	9.988 4572	4
5	9.989 1697	9.987 3699	9.986 6062	9.985 5716	5
6	9.987 0036	9.984 8439	9.983 9275	9.982 6859	6
7	9.984 8376	9.982 3178	9.981 2487	9.979 8002	7
8	9.982 6715	9.979 7918	9.978 5700	9.976 9145	8
9	9.980 5054	9.977 2658	9.975 8912	9.974 0288	9
10	9.978 3394	9.974 7398	9.973 2125	9.971 1431	10
11	9.976 1733	9.972 2137	9.970 5337	9.968 2574	11
12	9.974 0073	9.969 6877	9.967 8550	9.965 3717	12
13	9.971 8412	9.967 1617	9.965 1762	9.962 4861	13
14	9.969 6751	9.964 6357	9.962 4975	9.959 6004	14
15	9.967 5091	9.962 1096	9.959 8187	9.956 7147	15
16	9.965 3430	9.959 5836	9.957 1400	9.953 8290	16
17	9.963 1770	9.957 0576	9.954 4612	9.950 9433	17
18	9.961 0109	9.954 5316	9.951 7825	9.948 0576	18
19	9.958 8448	9.952 0055	9.949 1037	9.945 1719	19
20	9.956 6788	9.949 4795	9.946 4250	9.942 2862	20
21	9.954 5127	9.946 9535	9.943 7462	9.939 4005	21
22	9.952 3466	9.944 4275	9.941 0675	9.936 5149	22
23	9.950 1806	9.941 9014	9.938 3887	9.933 6292	23
24	9.948 0145	9.939 3754	9.935 7100	9.930 7435	24
25	9.945 8485	9.936 8494	9.933 0312	9.927 8578	25
26	9.943 6824	9.934 3234	9.930 3525	9.924 9721	26
27	9.941 5163	9.931 7973	9.927 6737	9.922 0864	27
28	9.939 3503	9.929 2713	9.924 9950	9.919 2007	28
29	9.937 1842	9.926 7453	9.922 3162	9.916 3150	29
30	9.935 0181	9.924 2193	9.919 6375	9.913 4294	30
31	9.932 8521	9.921 6933	9.916 9587	9.910 5437	31
32	9.930 6860	9.919 1672	9.914 2800	9.907 6580	32
33	9.928 5200	9.916 6412	9.911 6012	9.904 7723	33
34	9.926 3539	9.914 1152	9.908 9225	9.901 8866	34
35	9.924 1878	9.911 5892	9.906 2437	9.899 0009	35
36	9.922 0218	9.909 0631	9.903 5650	9.896 1152	36
37	9.919 8557	9.906 5371	9.900 8862	9.893 2295	37
38	9.917 6897	9.904 0111	9.898 2075	9.890 3438	38
39	9.915 5236	9.901 4851	9.895 5287	9 887 4582	39
40	9.913 3575	9.898 9590	9.892 8500	9.884 5725	40
41	9.911 1915	9.896 4330	9.890 1712	9.881 6868	41
42	9.909 0254	9.893 9070	9.887 4925	9.878 8011	42
43	9.906 8593	9.891 3810	9.884 8137	9.875 9154	43
44	9.904 6933	9.888 8549	9.882 1350	9.873 0297	44
45	9.902 5272	9.886 3289	9.879 4562	9.870 1440	45
46	9.900 3612	9.883 8029	9.876 7775	9.867 2583	46
47	9.898 1951	9.881 2769	9.874 0987	9.864 3726	47
48	9.896 0290	9.878 7508	9.871 4200	9.861 4870	48
49	9.893 8630	9.876 2248	9.868 7412	9.858 6013	49
50	9.891 6969	9 873 6988	9.866 0625	9 855 7156	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	0.7754 0902	0.7433 1480	0.7277 7886	0.7125 7388	51
52	0.7715 5127	0.7390 0394	0.7232 5849	0.7078 5485	52
53	0.7677 1270	0.7347 1809	0.7187 6620	0.7031 6707	53
54	0.7638 9324	0.7304 5709	0.7143 0182	0.6985 1033	54
55	0.7600 9277	0.7262 2080	0.7098 6516	0.6938 8444	55
56	0.7563 1122	0.7220 0908	0.7054 5606	0.6892 8918	56
57	0.7525 4847	0.7178 2179	0.7010 7434	0.6847 2435	57
58	0.7488 0445	0.7136 5878	0.6967 1985	0.6801 8975	58
59	0.7450 7906	0.7095 1991	0.6923 9239	0.6756 8518	59
60	0.7413 7220	0.7054 0505	0.6880 9182	0.6712 1044	60
61	0.7376 8378	0.7013 1405	0.6838 1796	0.6667 6534	61
62	0.7340 1371	0.6972 4678	0.6795 7064	0.6623 4968	62
63	0.7303 6190	0.6932 0310	0.6753 4970	0.6579 6326	63
64	0.7267 2826	0.6891 8286	0.6711 5499	0.6536 0588	64
65	0.7231 1269	0.6851 8594	0.6669 8632	0.6492 7737	65
66	0.7195 1512	0.6812 1221	0.6628 4355	0.6449 7752	66
67	0.7159 3544	0.6772 6151	0.6587 2651	0.6407 0614	67
68	0.7123 7357	0.6733 3373	0.6546 3504	0.6364 6306	68
69	0.7088 2943	0.6694 2873	0.6505 6898	0.6322 4807	69
70	0.7053 0291	0.6655 4638	0.6465 2818	0.6280 6100	70
71	0.7017 9394	0.6616 8654	0.6425 1248	0.6239 0165	71
72	0.6983 0243	0.6578 4909	0.6385 2172	0.6197 6985	72
73	0.6948 2829	0.6540 3389	0.6345 5574	0.6156 6541	73
74	0.6913 7143	0.6502 4082	0.6306 1440	0.6115 8816	74
75	0.6879 3177	0.6464 6975	0.6266 9754	0.6075 3791	75
76	0.6845 0923	0.6427 2054	0.6228 0501	0.6035 1448	76
77	0.6811 0371	0.6389 9308	0.6189 3666	0.5995 1769	77
78	0.6777 1513	0.6352 8724	0.6150 9233	0.5955 4738	78
79	0.6743 4342	0.6316 0289	0.6112 7188	0.5916 0336	79
80	0.6709 8847	0.6279 3991	0.6074 7516	0.5876 8545	80
81	0.6676 5022	0.6242 9817	0.6037 0203	0.5837 9350	81
82	0.6643 2858	0.6206 7755	0.5999 5232	0.5799 2732	82
83	0.6610 2346	0.6170 7793	0.5962 2591	0.5760 8674	83
84	0.6577 3479	0.6134 9919	0.5925 2264	0.5722 7159	84
85	0.6544 6248	0.6099 4120	0.5888 4238	0.5684 8171	85
86	0.6512 0644	0.6064 0384	0.5851 8497	0.5647 1693	86
87	0.6479 6661	0.6028 8700	0.5815 5028	0.5609 7709	87
88	0.6447 4290	0.5993 9056	0.5779 3817	0.5572 6201	88
89	0.6415 3522	0.5959 1439	0.5743 4849	0.5535 7153	89
90	0.6383 4350	0.5924 5838	0.5707 8111	0.5499 0549	90
91	0.6351 6766	0.5890 2242	0.5672 3589	0.5462 6374	91
92	0.6320 0763	0.5856 0638	0.5637 1268	0.5426 4610	92
93	0.6288 6331	0.5822 1015	0.5602 1136	0.5390 5241	93
94	0.6257 3464	0.5788 3363	0.5567 3179	0.5354 8253	94
95	0.6226 2153	0.5754 7668	0.5532 7383	0.5319 3629	95
96	0.6195 2391	0.5721 3920	0.5498 3734	0.5284 1353	96
97	0.6164 4170	0.5688 2108	0.5464 2220	0.5249 1410	97
98	0.6133 7483	0.5655 2220	0.5430 2828	0.5214 3785	98
99	0.6103 2321	0.5622 4245	0.5396 5543	0.5179 8462	99
100	0.6072 8678	0.5589 8172	0.5363 0353	0.5145 5426	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	9.889 5309	9.871 1728	9.863 3837	9.852 8299	51
52	9.887 3648	9.868 6467	9.860 7050	9.849 9442	52
53	9.885 1987	9.866 1207	9.858 0262	9.847 0585	53
54	9.883 0327	9.863 5947	9.855 3475	9.844 1728	54
55	9.880 8666	9.861 0687	9.852 6687	9.841 2871	55
56	9.878 7005	9.858 5427	9.849 9899	9.838 4015	56
57	9.876 5345	9.856 0166	9.847 3112	9.835 5158	57
58	9.874 3684	9.853 4906	9.844 6324	9.832 6301	58
59	9.872 2024	9.850 9646	9.841 9537	9.829 7444	59
60	9.870 0363	9.848 4386	9.839 2749	9.826 8587	60
61	9.867 8702	9.845 9125	9.836 5962	9.823 9730	61
62	9.865 7042	9.843 3865	9.833 9174	9.821 0873	62
63	9.863 5381	9.840 8605	9.831 2387	9.818 2016	63
64	9.861 3721	9.838 3345	9.828 5599	9.815 3159	64
65	9.859 2060	9.835 8084	9.825 8812	9.812 4303	65
66	9.857 0399	9.833 2824	9.823 2024	9.809 5446	66
67	9.854 8739	9.830 7564	9.820 5237	9.806 6589	67
68	9.852 7078	9.828 2304	9.817 8449	9.803 7732	68
69	9.850 5417	9.825 7043	9.815 1662	9.800 8875	69
70	9.848 3757	9.823 1783	9.812 4874	9.798 0018	70
71	9.846 2096	9.820 6523	9.809 8087	9.795 1161	71
72	9.844 0436	9.818 1263	9.807 1299	9.792 2304	72
73	9.841 8775	9.815 6002	9.804 4512	9.789 3448	73
74	9.839 7114	9.813 0742	9.801 7724	9.786 4591	74
75	9.837 5454	9.810 5482	9.799 0937	9.783 5734	75
76	9.835 3793	9.808 0222	9.796 4149	9.780 6877	76
77	9.833 2132	9.805 4961	9.793 7362	9.777 8020	77
78	9.831 0472	9.802 9701	9.791 0574	9.774 9163	78
79	9.828 8811	9.800 4441	9.788 3787	9.772 0306	79
80	9.826 7151	9.797 9181	9.785 6999	9.769 1449	80
81	9.824 5490	9.795 3920	9.783 0212	9.766 2592	81
82	9.822 3829	9.792 8660	9.780 3424	9.763 3736	82
83	9.820 2169	9.790 3400	9.777 6637	9.760 4879	83
84	9.818 0508	9.787 8140	9.774 9849	9.757 6022	84
85	9.815 8848	9.775 2880	9.772 3062	9.754 7165	85
86	9.813 7187	9.782 7619	9.769 6274	9.751 8308	86
87	9.811 5526	9.780 2359	9.766 9487	9.748 9451	87
88	9.809 3866	9.777 7099	9.764 2699	9.746 0594	88
89	9.807 2205	9.775 1839	9.761 5912	9.743 1737	89
90	9.805 0544	9.772 6578	9.758 9124	9.740 2881	90
91	9.802 8884	9.770 1318	9.756 2337	9.737 4024	91
92	9.800 7223	9.767 6058	9.753 5549	9.734 5167	92
93	9.798 5563	9.765 0798	9.750 8762	9.731 6310	93
94	9.796 3902	9.762 5537	9.748 1974	9.728 7453	94
95	9.794 2241	9.760 0277	9.745 5187	9.725 8596	95
96	9.792 0581	9.757 5017	9.742 8399	9.722 9739	96
97	9.789 8920	9.754 9757	9.740 1612	9.720 0882	97
98	9.787 7260	9.752 4496	9.737 4824	9.717 2025	98
99	9.785 5599	9.749 9236	9.734 8037	9.714 3169	99
100	9.783 3938	9.747 3976	9.732 1249	9.711 4312	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	0.6042 6545	0.5557 3991	0.5329 7246	0.5111 4660	101
102	0.6012 5915	0.5525 1689	0.5296 6207	0.5077 6152	102
103	0.5982 6781	0.5493 1257	0.5263 7225	0.5043 9886	103
104	0.5952 9136	0.5461 2683	0.5231 0285	0.5010 5847	104
105	0.5923 2971	0.5429 5957	0.5198 5377	0.4977 4020	105
106	0.5893 8279	0.5398 1067	0.5166 2486	0.4944 4391	106
107	0.5864 5054	0.5366 8004	0.5134 1601	0.4911 6945	107
108	0.5835 3288	0.5335 6756	0.5102 2709	0.4879 1667	108
109	0.5806 2973	0.5304 7313	0.5070 5798	0.4846 8543	109
110	0.5777 4102	0.5273 9665	0.5039 0855	0.4814 7559	110
111	0.5748 6669	0.5243 3801	0.5007 7868	0.4782 8701	111
112	0.5720 0666	0.5212 9711	0.4976 6826	0.4751 1955	112
113	0.5691 6085	0.5182 7385	0.4945 7715	0.4719 7306	113
114	0.5663 2921	0.5152 6812	0.4915 0524	0.4688 4741	114
115	0.5635 1165	0.5122 7982	0.4884 5242	0.4657 4246	115
116	0.5607 0811	0.5093 0885	0.4854 1855	0.4626 5808	116
117	0.5579 1852	0.5063 5512	0.4824 0353	0.4595 9411	117
118	0.5551 4280	0.5034 1851	0.4794 0723	0.4565 5044	118
119	0.5523 8090	0.5004 9893	0.4764 2955	0.4535 2693	119
120	0.5496 3273	0.4975 9629	0.4734 7036	0.4505 2344	120
121	0.5468 9824	0.4947 1047	0.4705 2955	0.4475 3984	121
122	0.5441 7736	0.4918 4140	0.4676 0700	0.4445 7600	122
123	0.5414 7001	0.4889 8896	0.4647 0261	0.4416 3179	123
124	0.5387 7612	0.4861 5307	0.4618 1626	0.4387 0708	124
125	0.5360 9565	0.4833 3363	0.4589 4784	0.4358 0173	125
126	0.5334 2850	0.4805 3053	0.4560 9723	0.4329 1563	126
127	0.5307 7463	0.4777 4369	0.4532 6433	0.4300 4864	127
128	0.5281 3396	0.4749 7302	0.4504 4902	0.4272 0063	128
129	0.5255 0643	0.4722 1841	0.4476 5120	0.4243 7149	129
130	0.5228 9197	0.4694 7978	0.4448 7076	0.4215 6108	130
131	0.5202 9052	0.4667 5703	0.4421 0759	0.4187 6929	131
132	0.5177 0201	0.4640 5007	0.4393 6158	0.4159 9598	132
133	0.5151 2637	0.4613 5881	0.4366 3262	0.4132 4104	133
134	0.5125 6356	0.4586 8316	0.4339 2062	0.4105 0434	134
135	0.5100 1349	0.4560 2303	0.4312 2546	0.4077 8577	135
136	0.5074 7611	0.4533 7832	0.4285 4704	0.4050 8520	136
137	0.5049 5135	0.4507 4895	0.4258 8526	0.4024 0252	137
138	0.5024 3916	0.4481 3483	0.4232 4001	0.3997 3760	138
139	0.4999 3946	0.4455 3587	0.4206 1119	0.3970 9033	139
140	0.4974 5220	0.4429 5198	0.4179 9870	0.3944 6059	140
141	0.4949 7731	0.4403 8308	0.4154 0243	0.3918 4827	141
142	0.4925 1474	0.4378 2908	0.4128 2229	0.3892 5325	142
143	0.4900 6442	0.4352 8989	0.4102 5818	0.3866 7541	143
144	0.4876 2628	0.4327 6542	0.4077 0999	0.3841 1465	144
145	0.4852 0028	0.4302 5560	0.4051 7763	0.3815 7084	145
146	0.4827 8635	0.4277 6033	0.4026 6100	0.3790 4389	146
147	0.4803 8443	0.4252 7953	0.4001 6000	0.3765 3366	147
148	0.4779 9446	0.4228 1312	0.3976 7453	0.3740 4006	148
149	0.4756 1637	0.4203 6102	0.3952 0451	0.3715 6297	159
150	0.4732 5012	0.4179 2313	0.3927 4982	0.3691 0229	150

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	9.781 2278	9.744 8716	9.729 4462	9.708 5455	101
102	9.779 0617	9.742 3455	9.726 7674	9.705 6598	102
103	9.776 8956	9.739 8195	9.724 0887	9.702 7741	103
104	9.774 7296	9.737 2935	9.721 4099	9.699 3384	104
105	9.772 5635	9.734 7675	9.718 7312	9.697 0027	105
106	9.770 3975	9.732 2414	9.716 0524	9.694 1170	106
107	9.768 2314	9.729 7154	9.713 3737	9.691 2314	107
108	9.766 0653	9.727 1894	9.710 6949	9.688 3457	108
109	9.763 8993	9.724 6634	9.708 0162	9.685 4600	109
110	9.761 7332	9.722 1373	9.705 3374	9.682 5743	110
111	9.759 5672	9.719 6113	9.702 6587	9.679 6886	111
112	9.757 4011	9.717 0853	9.699 9799	9.676 8029	112
113	9.755 2350	9.714 5593	9.697 3011	9.673 9172	113
114	9.753 0690	9.712 0333	9.694 6224	9.671 0315	114
115	9.750 9029	9.709 5072	9.691 9436	9.668 1458	115
116	9.748 7368	9.706 9812	9.689 2649	9.665 2602	116
117	9.746 5708	9.704 4552	9.686 5861	9.662 3745	117
118	9.744 4047	9.701 9292	9.683 9074	9.659 4888	118
119	9.742 2387	9.699 4031	9.681 2286	9.656 6031	119
120	9.740 0726	9.696 8771	9.678 5499	9.653 7174	120
121	9.737 9065	9.694 3511	9.675 8711	9.650 8317	121
122	9.735 7405	9.691 8251	9.673 1924	9.647 9460	122
123	9.733 5744	9.689 2990	9.670 5136	9.645 0603	123
124	9.731 4083	9.686 7730	9.667 8349	9.642 1747	124
125	9.729 2423	9.684 2470	9.665 1561	9.639 2890	125
126	9.727 0762	9.681 7210	9.662 4774	9.636 4033	126
127	9.724 9102	9.679 1949	9.659 7986	9.633 5176	127
128	9.722 7441	9.676 6689	9.657 1199	9.630 6319	128
129	9.720 5780	9.674 1429	9.654 4411	9.627 7462	129
130	9.718 4120	9.671 6169	9.651 7624	9.624 8605	130
131	9.716 2459	9.669 0908	9.649 0836	9.621 9748	131
132	9.714 0799	9.666 5648	9.646 4049	9.619 0891	132
133	9.711 9138	9.664 0388	9.643 7261	9.616 2035	133
134	9.709 7477	9.661 5128	9.641 0474	9.613 3178	134
135	9.707 5817	9.658 9867	9.638 3686	9.610 4321	135
136	9.705 4156	9.656 4607	9.635 6899	9.607 5464	136
137	9.703 2495	9.653 9347	9.633 0111	9.604 6607	137
138	9.701 0835	9.651 4087	9.630 3324	9.601 7750	138
139	9.698 9174	9.648 8827	9.627 6536	9.598 8893	139
140	9.696 7514	9.646 3566	9.624 9749	9.596 0036	140
141	9.694 5853	9.643 8306	9.622 2961	9.593 1179	141
142	9.692 4192	9.641 3046	9.619 6174	9.590 2323	142
143	9.690 2532	9.638 7786	9.616 9386	9.587 3466	143
144	9.688 0871	9.636 2525	9.614 2599	9.584 4609	144
145	9.685 9211	9.633 7265	9.611 5811	9.581 5752	145
146	9.683 7550	9.631 2005	9.608 9024	9.578 6895	146
147	9.681 5889	9.628 6745	9.606 2236	9.575 8038	147
148	9.679 4229	9.626 1484	9.603 5449	9.572 9181	148
149	9.677 2568	9.623 6224	9.600 8661	9.570 0324	149
150	9.675 0907	9.621 0964	9.598 1874	9.567 1468	150

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	0.4708 9565	0.4154 9939	0.3903 1038	0.3666 5791	151
152	0.4685 5288	0.4130 8970	0.3878 8609	0.3642 2971	152
153	0.4662 2177	0.4106 9398	0.3854 7686	0.3618 1759	153
154	0.4639 0226	0.4083 1216	0.3830 8259	0.3594 2145	154
155	0.4615 9429	0.4059 4416	0.3807 0320	0.3570 4117	155
156	0.4592 9780	0.4035 8988	0.3783 3858	0.3546 7666	156
157	0.4570 1274	0.4012 4926	0.3759 8865	0.3523 2781	157
158	0.4547 3904	0.3989 2221	0.3736 5332	0.3499 9451	158
159	0.4524 7666	0.3966 0866	0.3713 3249	0.3476 7667	159
160	0.4502 2553	0.3943 0853	0.3690 2608	0.3453 7417	160
161	0.4479 8560	0.3920 2174	0.3667 3399	0.3430 8693	161
162	0.4457 5682	0.3897 4821	0.3644 5614	0.3408 1483	162
163	0.4435 3912	0.3874 8786	0.3621 9244	0.3385 5778	163
164	0.4413 3246	0.3852 4062	0.3599 4280	0.3363 1567	164
165	0.4391 3678	0.3830 0642	0.3577 0713	0.3340 8841	165
166	0.4369 5202	0.3807 8517	0.3554 8534	0.3318 7591	166
167	0.4347 7813	0.3785 7681	0.3532 7736	0.3296 7805	167
168	0.4326 1505	0.3763 8125	0.3510 8309	0.3274 9476	168
169	0.4304 6274	0.3741 9843	0.3489 0245	0.3253 2592	169
170	0.4283 2113	0.3720 2826	0.3467 3535	0.3231 7144	170
171	0.4261 9018	0.3698 7068	0.3445 8172	0.3210 3123	171
172	0.4240 6983	0.3677 2562	0.3424 4146	0.3189 0520	172
173	0.4219 6003	0.3655 9299	0.3403 1449	0.3167 9324	173
174	0.4198 6073	0.3634 7273	0.3382 0074	0.3146 9527	174
175	0.4177 7187	0.3613 6477	0.3361 0011	0.3126 1120	175
176	0.4156 9340	0.3592 6904	0.3340 1254	0.3105 4093	176
177	0.4136 2528	0.3571 8546	0.3319 3792	0.3084 8436	177
178	0.4115 6744	0.3551 1396	0.3298 7620	0.3064 4142	178
179	0.4095 1984	0.3530 5447	0.3278 2728	0.3044 1201	179
180	0.4074 8243	0.3510 0693	0.3257 9108	0.3023 9603	180
181	0.4054 5515	0.3489 7127	0.3237 6754	0.3003 9341	181
182	0.4034 3796	0.3469 4741	0.3217 5656	0.2984 0405	182
183	0.4014 3081	0.3449 3529	0.3197 5807	0.2964 2786	183
184	0.3994 3364	0.3429 3483	0.3177 7199	0.2944 6477	184
185	0.3974 4641	0.3409 4598	0.3157 9825	0.2925 1467	185
186	0.3954 6906	0.3389 6866	0.3138 3677	0.2905 7748	186
187	0.3935 0155	0.3370 0281	0.3118 8748	0.2886 5313	187
188	0.3915 4383	0.3350 4837	0.3099 5029	0.2867 4152	188
189	0.3895 9586	0.3331 0525	0.3080 2513	0.2848 4257	189
190	0.3876 5757	0.3311 7341	0.3061 1193	0.2829 5619	190
191	0.3857 2892	0.3292 5277	0.3042 1062	0.2810 8231	191
192	0.3838 0987	0.3273 4326	0.3023 2111	0.2792 2084	192
193	0.3819 0037	0.3254 4484	0.3004 4334	0.2773 7170	193
194	0.3800 0037	0.3235 5742	0.2985 7723	0.2755 3480	194
195	0.3781 0982	0.3216 8095	0.2967 2271	0.2737 1006	195
196	0.3762 2868	0.3198 1536	0.2948 7972	0.2718 9741	196
197	0.3743 5689	0.3179 6059	0.2930 4816	0.2700 9677	197
198	0.3724 9442	0.3161 1657	0.2912 2799	0.2683 0805	198
199	0.3706 4121	0.3142 8325	0.2894 1912	0.2665 3117	199
200	0.3687 9723	0.3124 6057	0.2876 2149	0.2647 6607	200

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	9.672 9247	9.618 5704	9.595 5086	9.564 2611	151
152	9.670 7586	9.616 0443	9.592 8299	9.561 3754	152
153	9.668 5926	9.613 5183	9.590 1511	9.558 4897	153
154	9.666 4265	9.610 9923	9.587 4724	9.555 6040	154
155	9.664 2604	9.608 4663	9.584 7936	9.552 7183	155
156	9.662 0944	9.605 9402	9.582 1149	9.549 8326	156
157	9.659 9283	9.603 4142	9.579 4361	9.546 9469	157
158	9.657 7623	9.600 8882	9.576 7574	9.544 0612	158
159	9.655 5962	9.598 3622	9.574 0786	9.541 1756	159
160	9.653 4301	9.595 8361	9.571 3999	9.538 2899	160
161	9.651 2641	9.593 3101	9.568 7211	9.535 4042	161
162	9.649 0980	9.590 7841	9.566 0424	9.532 5185	162
163	9.646 9319	9.588 2581	9.563 3636	9.529 6328	163
164	9.644 7659	9.585 7320	9.560 6849	9.526 7471	164
165	9.642 5998	9.583 2060	9.558 0061	9.523 8614	165
166	9.640 4338	9.580 6800	9.555 3274	9.520 9757	166
167	9.638 2677	9.578 1540	9.552 6486	9.518 0901	167
168	9.636 1016	9.575 6280	9.549 9698	9.515 2044	168
169	9.633 9356	9.573 1019	9.547 2911	9.512 3187	169
170	9.631 7695	9.570 5759	9.544 6123	9.509 4330	170
171	9.629 6034	9.568 0499	9.541 9336	9.506 5473	171
172	9.627 4374	9.565 5239	9.539 2548	9.503 6616	172
173	9.625 2713	9.562 9978	9.536 5761	9.500 7759	173
174	9.623 1053	9.560 4718	9.533 8973	9.497 8902	174
175	9.620 9392	9.557 9458	9.531 2186	9.495 0045	175
176	9.618 7731	9.555 4198	9.528 5398	9.492 1189	176
177	9.616 6071	9.552 8937	9.525 8611	9.489 2332	177
178	9.614 4410	9.550 3677	9.523 1823	9.486 3475	178
179	9.612 2750	9.547 8417	9.520 5036	9.483 4618	179
180	9.610 1089	9.545 3157	9.517 8248	9.480 5761	180
181	9.607 9428	9.542 7896	9.515 1461	9.477 6904	181
182	9.605 7768	9.540 2636	9.512 4673	9.474 8047	182
183	9.603 6107	9.537 7376	9.509 7886	9.471 9190	183
184	9.601 4446	9.535 2116	9.507 1098	9.469 0334	184
185	9.599 2786	9.532 6855	9.504 4311	9.466 1477	185
186	9.597 1125	9.530 1595	9.501 7523	9.463 2620	186
187	9.594 9465	9.527 6335	9.499 0736	9.460 3763	187
188	9.592 7804	9.525 1075	9.496 3948	9.457 4906	188
189	9.590 6143	9.522 5814	9.493 7161	9.454 6049	189
190	9.588 4483	9.520 0554	9.491 0373	9.451 7192	190
191	9.586 2822	9.517 5294	9.488 3586	9.448 8335	191
192	9.584 1162	9.515 0034	9.485 6798	9.445 9478	192
193	9.581 9501	9.512 4773	9.483 0011	9.443 0622	193
194	9.579 7840	9.509 9513	9.480 3223	9.440 1765	194
195	9.577 6180	9.507 4253	9.477 6436	9.437 2908	195
196	9.575 4519	9.504 8993	9.474 9648	9.434 4051	196
197	9.573 2858	9.502 3733	9.472 2861	9.431 5194	197
198	9.571 1198	9.499 8472	9.469 6073	9.428 6337	198
199	9.568 9537	9.497 3212	9.466 9286	9.425 7480	199
200	9.566 7877	9.494 7952	9.464 2498	9.422 8623	200

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	0.9925 5583	0.9913 2590	0.9900 9901	0.9888 7515	1
2	0.9851 6708	0.9827 2704	0.9802 9605	0.9778 7407	2
3	0.9778 3333	0.9742 0276	0.9705 9015	0.9669 9537	3
4	0.9705 5417	0.9657 5243	0.9609 8034	0.9562 3770	4
5	0.9633 2920	0.9573 7539	0.9514 6569	0.9455 9970	5
6	0.9561 5802	0.9490 7102	0.9420 4524	0.9350 8005	6
7	0.9490 4022	0.9408 3868	0.9327 1805	0.9246 7743	7
8	0.941 7540	0.9326 7775	0.9234 8322	0.9143 9054	8
9	0.9349 6318	0.9245 8761	0.9143 3982	0.9042 1808	9
10	0.9280 0315	0.9165 6765	0.9052 8695	0.8941 5881	10
11	0.9210 9494	0.9086 1724	0.8963 2372	0.8842 1142	11
12	0.9142 3815	0.9007 3581	0.8874 4923	0.8743 7470	12
13	0.9074 3241	0.8929 2273	0.8786 6260	0.8646 4742	13
14	0.9006 7733	0.8851 7743	0.8699 6297	0.8550 2835	14
15	0.8939 7254	0.8774 9931	0.8613 4947	0.8455 1629	15
16	0.8873 1766	0.8698 8779	0.8528 2126	0.8361 1005	16
17	0.8807 1231	0.8623 4230	0.8443 7749	0.8268 0846	17
18	0.8741 5614	0.8548 6225	0.8360 1731	0.8176 1034	18
19	0.8676 4878	0.8474 4709	0.8277 3992	0.8085 1455	19
20	0.8611 8985	0.8400 9624	0.8195 4447	0.7995 1995	20
21	0.8547 7901	0.8328 0917	0.8114 3017	0.7906 2542	21
22	0.8484 1589	0.8255 8530	0.8033 9621	0.7818 2983	22
23	0.8421 0014	0.8184 2409	0.7954 4179	0.7731 3210	23
24	0.8358 3140	0.8113 2499	0.7875 6613	0.7645 3112	24
25	0.8296 0933	0.8042 8748	0.7797 6844	0.7560 2583	25
26	0.8234 3358	0.7973 1101	0.7720 4796	0.7476 1516	26
27	0.8173 0380	0.7903 9505	0.7644 0392	0.7392 9806	27
28	0.8112 1966	0.7835 3908	0.7568 3557	0.7310 7348	28
29	0.8051 8080	0.7767 4258	0.7493 4215	0.7229 4040	29
30	0.7991 8690	0.7700 0504	0.7419 2292	0.7148 9780	30
31	0.7932 3762	0.7633 2594	0.7345 7715	0.7069 4467	31
32	0.7873 3262	0.7567 0477	0.7273 0411	0.6990 8002	32
33	0.7814 7158	0.7501 4104	0.7201 0307	0.6913 0287	33
34	0.7756 5418	0.7436 3424	0.7129 7334	0.6836 1223	34
35	0.7698 8008	0.7371 8388	0.7059 1420	0.6760 0715	35
36	0.7641 4896	0.7307 8947	0.6989 2495	0.6684 8667	36
37	0.7584 6051	0.7244 5053	0.6920 0490	0.6610 4986	37
38	0.7528 1440	0.7181 6657	0.6851 5337	0.6536 9578	38
39	0.7472 1032	0.7119 3712	0.6783 6967	0.6464 2352	39
40	0.7416 4796	0.7057 6171	0.6716 5314	0.6392 3216	40
41	0.7361 2701	0.6996 3986	0.6650 0311	0.6321 2080	41
42	0.7306 4716	0.6935 7111	0.6584 1892	0.6250 8855	42
43	0.7252 0809	0.6875 5500	0.6518 9992	0.6181 3454	43
44	0.7198 0952	0.6815 9108	0.6454 4546	0.6112 5789	44
45	0.7144 5114	0.6756 7889	0.6390 5492	0.6044 5774	45
46	0.7091 3264	0.6698 1798	0.6327 2764	0.5977 3324	46
47	0.7038 5374	0.6640 0792	0.6264 6301	0.5910 8355	47
48	0.6986 1414	0.6582 4824	0.6202 6041	0.5845 0784	48
49	0.6934 1353	0.6525 3853	0.6141 1921	0.5780 0528	49
50	0.6882 5165	0.6468 7835	0.6080 3882	0.5715 7506	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	9.996 7549	9.996 2165	9.995 6786	9.995 1415	1
2	9.993 5099	9.992 4329	9.991 3573	9.990 2829	2
3	9.990 2648	9.988 6494	9.987 0359	9.985 4244	3
4	9.987 0198	9.984 8658	9.982 7145	9.980 5659	4
5	9.983 7747	9.981 0823	9.978 3931	9.975 7073	5
6	9.980 5297	9.977 2987	9.974 0718	9.970 8488	6
7	9.977 2846	9.973 5152	9.969 7504	9.965 9903	7
8	9.974 0396	9.969 7316	9.965 4290	9.961 1317	8
9	9.970 7945	9.965 9481	9.961 1076	9.956 2732	9
10	9.967 5495	9.962 1645	9.956 7863	9.951 4147	10
11	9.964 3044	9.958 3810	9.952 4650	9.946 5561	11
12	9.961 0593	9.954 5974	9.948 1435	9.941 6976	12
13	9.957 8143	9.950 8139	9.943 8221	9.936 8391	13
14	9.954 5692	9.947 0303	9.939 5008	9.931 9805	14
15	9.951 3242	9.943 2468	9.935 1794	9.927 1220	15
16	9.948 0791	9.939 4632	9.930 8580	9.922 2634	16
17	9.944 8341	9.935 6797	9.926 5366	9.917 4049	17
18	9.941 5890	9.931 8961	9.922 2153	9.912 5464	18
19	9.938 3440	9.928 1126	9.917 8939	9.907 6878	19
20	9.935 0989	9.924 3290	9.913 5725	9.902 8293	20
21	9.931 8538	9.920 5455	9.909 2512	9.897 9708	21
22	9.928 6088	9.916 7620	9.904 9298	9.893 1122	22
23	9.925 3637	9.912 9784	9.900 6084	9.888 2537	23
24	9.922 1187	9.909 1949	9.896 2870	9.883 3952	24
25	9.918 8736	9.905 4113	9.891 9657	9.878 5366	25
26	9.915 6286	9.901 6278	9.887 6443	9.873 6781	26
27	9.912 3835	9.897 8442	9.883 3229	9.868 8196	27
28	9.909 1385	9.894 0607	9.879 0015	9.863 9610	28
29	9.905 8934	9.890 2771	9.874 6802	9.859 1025	29
30	9.902 6484	9.886 4936	9.870 3588	9.854 2440	30
31	9.899 4033	9.882 7100	9.866 0374	9.849 3854	31
32	9.896 1582	9.878 9265	9.861 7160	9.844 5269	32
33	9.892 9132	9.875 1429	9.857 3947	9.839 6684	33
34	9.889 6681	9.871 3594	9.853 0733	9.834 8098	34
35	9.886 4231	9.867 5758	9.848 7519	9.829 9513	35
36	9.883 1780	9.863 7923	9.844 4305	9.825 0928	36
37	9.879 9330	9.860 0087	9.840 1092	9.820 2342	37
38	9.876 6879	9.856 2252	9.835 7878	9.815 3757	38
39	9.873 4429	9.852 4416	9.831 4664	9.810 5172	39
40	9.870 1978	9.848 6581	9.827 1450	9.805 6586	40
41	9.866 9528	9.844 8745	9.822 8237	9.800 8001	41
42	9.863 7077	9.841 0910	9.818 5023	9.795 9415	42
43	9.860 4626	9.837 3074	9.814 1809	9.791 0830	43
44	9.857 2176	9.833 5239	9.809 8596	9.786 2245	44
45	9.853 9725	9.829 7404	9.805 5382	9.781 3659	45
46	9.850 7275	9.825 9568	9.801 2168	9.776 5074	46
47	9.847 4824	9.822 1733	9.796 8954	9.771 6489	47
48	9.844 2374	9.818 3897	9.792 5741	9.766 7903	48
49	9.840 9923	9.814 6062	9.788 2527	9.761 9318	49
50	9.837 7473	9.810 8226	9.783 9313	9.757 0733	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	¾%	⅞%	1%	1⅛%	n
51	0.6831 2819	0.6412 6726	0.6020 1864	0.5652 1637	51
52	0.6780 4286	0.6357 0484	0.5960 5806	0.5589 2843	52
53	0.6729 9540	0.6301 9067	0.5901 5649	0.5527 1044	53
54	0.6679 8551	0.6247 2433	0.5843 1336	0.5465 6162	54
55	0.6630 1291	0.6193 0541	0.5785 2808	0.5404 8120	55
56	0.6580 7733	0.6139 3349	0.5728 0008	0.5344 6843	56
57	0.6531 7849	0.6086 0817	0.5671 2879	0.5285 2256	57
58	0.6483 1612	0.6033 2904	0.5615 1365	0.5226 4282	58
59	0.6434 8995	0.5980 9571	0.5559 5411	0.5168 2850	59
60	0.6386 9970	0.5929 0776	0.5504 4962	0.5110 7887	60
61	0.6339 4511	0.5877 6482	0.5449 9962	0.5053 9319	61
62	0.6292 2592	0.5826 6649	0.5396 0358	0.4997 7077	62
63	0.6245 4185	0.5776 1238	0.5342 6097	0.4942 1090	63
64	0.6198 9266	0.5726 0211	0.5289 7126	0.4887 1288	64
65	0.6152 7807	0.5676 3530	0.5237 3392	0.4832 7602	65
66	0.6106 9784	0.5627 1158	0.5185 4844	0.4778 9965	66
67	0.6061 5170	0.5578 3056	0.5134 1429	0.4725 8309	67
68	0.6016 3940	0.5529 9188	0.5083 3099	0.4673 2568	68
69	0.5971 6070	0.5481 9517	0.5032 9801	0.4621 2675	69
70	0.5927 1533	0.5434 4007	0.4983 1486	0.4569 8566	70
71	0.5883 0306	0.5387 2622	0.4933 8105	0.4519 0177	71
72	0.5839 2363	0.5340 5325	0.4884 9609	0.4468 7443	72
73	0.5795 7681	0.5294 2082	0.4836 5949	0.4419 0302	73
74	0.5752 6234	0.5248 2857	0.4788 7078	0.4369 8692	74
75	0.5709 7999	0.5202 7615	0.4741 2949	0.4321 2551	75
76	0.5667 2952	0.5157 6322	0.4694 3514	0.4273 1818	76
77	0.5625 1069	0.5112 8944	0.4647 8726	0.4225 6433	77
78	0.5583 2326	0.5068 5447	0.4601 8541	0.4178 6337	78
79	0.5541 6701	0.5024 5796	0.4556 2912	0.4132 1470	79
80	0.5500 4170	0.4980 9959	0.4511 1794	0.4086 1775	80
81	0.5459 4710	0.4937 7902	0.4466 5142	0.4040 7194	81
82	0.5418 8297	0.4894 9593	0.4422 2913	0.3995 7670	82
83	0.5378 4911	0.4852 4999	0.4378 5063	0.3951 3148	83
84	0.5338 4527	0.4810 4089	0.4335 1547	0.3907 3570	84
85	0.5298 7123	0.4768 6829	0.4292 2324	0.3863 8882	85
86	0.5259 2678	0.4727 3188	0.4249 7350	0.3820 9031	86
87	0.5220 1169	0.4686 3136	0.4207 6585	0.3778 3961	87
88	0.5181 2575	0.4645 6640	0.4165 9985	0.3736 3621	88
89	0.5142 6873	0.4605 3671	0.4124 7510	0.3694 7956	89
90	0.5104 4043	0.4565 4197	0.4083 9119	0.3653 6916	90
91	0.5066 4063	0.4525 8187	0.4043 4771	0.3613 0448	91
92	0.5028 6911	0.4486 5613	0.4003 4427	0.3572 8503	92
93	0.4991 2567	0.4447 6444	0.3963 8046	0.3533 1029	93
94	0.4954 1009	0.4409 0651	0.3924 5590	0.3493 7976	94
95	0.4917 2217	0.4370 8204	0.3885 7020	0.3454 9297	95
96	0.4880 6171	0.4332 9075	0.3847 2297	0.3416 4941	96
97	0.4844 2850	0.4295 3234	0.3809 1383	0.3378 4861	97
98	0.4808 2233	0.4258 0654	0.3771 4241	0.3340 9010	98
99	0.4772 4301	0.4221 1305	0.3734 0832	0.3303 7340	99
100	0.4736 9033	0.4184 5159	0.3697 1121	0.3266 9805	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	9.834 5022	9.807 0391	9.779 6099	9.752 2147	51
52	9.831 2572	9.803 2555	9.775 2886	9.747 3562	52
53	9.828 0121	9.799 4720	9.770 9672	9.742 4977	53
54	9.824 7670	9.795 6884	9.766 6458	9.737 6391	54
55	9.821 5220	9.791 9049	9.762 3244	9.732 7806	55
56	9.818 2769	9.788 1213	9.758 0031	9.727 9221	56
57	9.815 0319	9.784 3378	9.753 6817	9.723 0635	57
58	9.811 7868	9.780 5542	9.749 3603	9.718 2050	58
59	9.808 5418	9.776 7707	9.745 0389	9.713 3465	59
60	9.805 2967	9.772 9871	9.740 7176	9.708 4879	60
61	9.802 0517	9.769 2036	9.736 3962	9.703 6294	61
62	9.798 8066	9.765 4200	9.732 0748	9.698 7709	62
63	9.795 5615	9.761 6365	9.727 7535	9.693 9123	63
64	9.792 3165	9.757 8529	9.723 4321	9.689 0538	64
65	9.789 0714	9.754 0694	9.719 1107	9.684 1953	65
66	9.785 8264	9.750 2859	9.714 7893	9.679 3367	66
67	9.782 5813	9.746 5023	9.710 4680	9.674 4782	67
68	9.779 3363	9.742 7188	9.706 1466	9.669 6196	68
69	9.776 0912	9.738 9352	9.701 8252	9.664 7611	69
70	9.772 8462	9.735 1517	9.697 5038	9.659 9026	70
71	9.769 6011	9.731 3681	9.693 1825	9.655 0440	71
72	9.766 3561	9.727 5846	9.688 8611	9.650 1855	72
73	9.763 1110	9.723 8010	9.684 5397	9.645 3270	73
74	9.759 8659	9.720 0175	9.680 2183	9.640 4684	74
75	9.756 6209	9.716 2339	9.675 8970	9.635 6099	75
76	9.753 3758	9.712 4504	9.671 5756	9.630 7514	76
77	9.750 1308	9.708 6668	9.667 2542	9.625 8928	77
78	9.746 8857	9.704 8833	9.662 9328	9.621 0343	78
79	9.743 6407	9.701 0997	9.658 6113	9.616 1758	79
80	9.740 3956	9.697 3162	9.654 2901	9.611 3172	80
81	9.737 1506	9.693 5326	9.649 9687	9.606 4587	81
82	9.733 9055	9.689 7491	9.645 6473	9.601 6002	82
83	9.730 6605	9.685 9655	9.641 3260	9.596 7416	83
84	9.727 4154	9.682 1820	9.637 0046	9.591 8831	84
85	9.724 1703	9.678 3984	9.632 6832	9.587 0246	85
86	9.720 9253	9.674 6149	9.628 3619	9.582 1660	86
87	9.717 6802	9.670 8314	9.624 0405	9.577 3075	87
88	9.714 4352	9.667 0478	9.619 7191	9.572 4490	88
89	9.711 1901	9.663 2643	9.615 3977	9.567 5904	89
90	9.707 9451	9.659 4807	9.611 0763	9.562 7319	90
91	9.704 7000	9.655 6972	9.606 7550	9.557 8734	91
92	9.701 4550	9.651 9136	9.602 4336	9.553 0148	92
93	9.698 2099	9.648 1301	9.598 1122	9.548 1563	93
94	9.694 9648	9.644 3465	9.593 7909	9.543 2977	94
95	9.691 7198	9.640 5630	9.589 4695	9.538 4392	95
96	9.688 4747	9.636 7794	9.585 1481	9.533 5807	96
97	9.685 2297	9.632 9959	9.580 8267	9.528 7221	97
98	9.681 9846	9.629 2123	9.576 5054	9.523 8636	98
99	9.678 7396	9.625 4288	9.572 1840	9.519 0051	99
100	9.675 4945	9.621 6452	9.567 8626	9.514 1465	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
101	0.4701 6410	0.4148 2190	0.3660 5071	0.3230 6358	101
102	0.4666 6412	0.4112 2370	0.3624 2644	0.3194 6955	102
103	0.4631 9019	0.4076 5670	0.3588 3806	0.3159 1550	103
104	0.4597 4213	0.4041 2064	0.3552 8521	0.3124 0099	104
105	0.4563 1973	0.4006 1526	0.3517 6753	0.3089 2558	105
106	0.4529 2281	0.3971 4028	0.3482 8469	0.3054 8883	106
107	0.4495 5117	0.3936 9545	0.3448 3632	0.3020 9031	107
108	0.4462 0464	0.3902 8049	0.3414 2210	0.2987 2960	108
109	0.4428 8302	0.3868 9516	0.3380 4168	0.2954 0628	109
110	0.4395 8612	0.3835 3919	0.3346 9474	0.2921 1993	110
111	0.4363 1377	0.3802 1233	0.3213 8093	0.2888 7014	111
112	0.4330 6577	0.3769 1433	0.3280 9993	0.2856 5651	112
113	0.4298 4196	0.3736 4494	0.3248 5141	0.2824 7862	113
114	0.4266 4124	0.3704 0391	0.3216 3506	0.2793 3609	114
115	0.4234 6615	0.3671 9099	0.3184 5056	0.2762 2852	115
116	0.4203 1379	0.3640 0593	0.3152 9758	0.2731 5552	116
117	0.4171 8491	0.3608 4851	0.3121 7582	0.2701 1671	117
118	0.4140 7931	0.3577 1847	0.3090 8497	0.2671 1170	118
119	0.4109 9683	0.3546 1559	0.3060 2473	0.2641 4013	119
120	0.4079 3730	0.3515 3961	0.3029 9478	0.2612 0161	120
121	0.4049 0055	0.3484 9032	0.2999 9483	0.2582 9578	121
122	0.4018 8640	0.3454 6748	0.2970 2459	0.2554 2228	122
123	0.3988 9469	0.3424 7086	0.2940 8375	0.2525 8075	123
124	0.3959 2525	0.3395 0024	0.2911 7203	0.2497 7082	124
125	0.3929 7792	0.3365 5538	0.2882 8914	0.2469 9216	125
126	0.3900 5252	0.3336 3606	0.2854 3479	0.2442 4441	126
127	0.3871 4891	0.3307 4207	0.2826 0870	0.2415 2723	127
128	0.3842 6691	0.3278 7318	0.2798 1060	0.2388 4028	128
129	0.3814 0636	0.3250 2917	0.2770 4019	0.2361 8322	129
130	0.3785 6711	0.3222 0984	0.2742 9722	0.2335 5572	130
131	0.3757 4899	0.3194 1496	0.2715 8141	0.2309 5744	131
132	0.3729 5185	0.3166 4432	0.2688 9248	0.2283 8808	132
133	0.3701 7553	0.3138 9771	0.2662 3018	0.2258 4730	133
134	0.3674 1988	0.3111 7493	0.2635 9424	0.2233 3478	134
135	0.3646 8475	0.3084 7577	0.2609 8439	0.2208 5021	135
136	0.3619 6997	0.3058 0002	0.2584 0039	0.2183 9329	136
137	0.3592 7541	0.3031 4748	0.2558 4197	0.2159 6370	137
138	0.3566 0090	0.3005 1795	0.2533 0888	0.2135 6114	138
139	0.3539 4630	0.2979 1122	0.2508 0087	0.2111 8530	139
140	0.3513 1147	0.2953 2711	0.2483 1770	0.2088 3590	140
141	0.3486 9625	0.2927 6541	0.2458 5911	0.2065 1263	141
142	0.3461 0049	0.2902 2594	0.2434 2486	0.2042 1521	142
143	0.3435 2406	0.2877 0849	0.2410 1471	0.2019 4335	143
144	0.3409 6681	0.2852 1288	0.2386 2843	0.1996 9676	144
145	0.3384 2860	0.2827 3891	0.2362 6577	0.1974 7516	145
146	0.3359 0928	0.2802 8640	0.2339 2650	0.1952 7828	146
147	0.3334 0871	0.2778 5517	0.2316 1040	0.1931 6584	147
148	0.3309 2676	0.2754 4503	0.2293 1723	0.1909 5757	148
149	0.3284 6329	0.2730 5579	0.2270 4676	0.1888 3320	149
150	0.3260 1815	0.2706 8728	0.2247 9877	0.1867 3245	150

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	¾%	⅞%	1%	1⅛%	n
101	9.672 2495	9.617 8617	9.563 5412	9.509 2880	101
102	9.669 0044	9.614 0781	9.559 2199	9.504 4295	102
103	9.665 7594	9.610 2946	9.554 8985	9.499 5709	103
104	9.662 5143	9.605 5110	9.550 5771	9.494 7124	104
105	9.659 2692	9.602 7275	9.546 2558	9.489 8539	105
106	9.656 0242	9.598 9439	9.541 9344	9.484 9953	106
107	9.652 7791	9.595 1604	9.537 6130	9.480 1368	107
108	9.649 5341	9.591 3768	9.533 2916	9.475 2783	108
109	9.646 2890	9.587 5933	9.528 9703	9.470 4197	109
110	9.643 0440	9.583 8098	9.524 6489	9.465 5612	110
111	9.639 7989	9.580 0262	9.520 3275	9.460 7027	111
112	9.636 5539	9.576 2427	9.516 0061	9.455 8441	112
113	9.633 3088	9.572 4591	9.511 6848	9.450 9856	113
114	9.630 0629	9.568 6756	9.507 3634	9.446 1271	114
115	9.626 8187	9.564 8920	9.503 0420	9.441 2685	115
116	9.623 5736	9.561 1085	9.498 7206	9.436 4100	116
117	9.620 3286	9.557 3249	9.494 3993	9.431 5515	117
118	9.617 0835	9.553 5414	9.490 0779	9.426 6929	118
119	9.613 8385	9.549 7578	9.485 7565	9.421 8344	119
120	9.610 5934	9.545 9743	9.481 4351	9.416 9758	120
121	9.607 3484	9.542 1907	9.477 1138	9.412 1173	121
122	9.604 1033	9.538 4072	9.472 7924	9.407 2588	122
123	9.600 8583	9.534 6236	9.468 4710	9.402 4002	123
124	9.597 6132	9.530 8401	9.464 1496	9.397 5417	124
125	9.594 3682	9.527 0565	9.459 8283	9.392 6832	125
126	9.591 1231	9.523 2730	9.455 5069	9.387 8246	126
127	9.587 8780	9.519 4894	9.451 1855	9.382 9661	127
128	9.584 6330	9.515 7059	9.446 8642	9.378 1076	128
129	9.581 3879	9.511 9223	9.442 5428	9.373 2490	129
130	9.578 1429	9.508 1388	9.438 2214	9.368 3905	130
131	9.574 8978	9.504 3553	9.433 9000	9.363 5320	131
132	9.571 6528	9.500 5717	9.429 5787	9.358 6734	132
133	9.568 4077	9.496 7882	9.425 2573	9.353 8149	133
134	9.565 1627	9.493 0046	9.420 9359	9.348 9564	134
135	9.561 9176	9.489 2211	9.416 6145	9.344 0978	135
136	9.558 6725	9.485 4375	9.412 2932	9.339 2393	136
137	9.555 4275	9.481 6540	9.407 9718	9.334 3808	137
138	9.552 1824	9.477 8704	9.403 6504	9.329 5222	138
139	9.548 9374	9.474 0869	9.399 3290	9.324 6637	139
140	9.545 6923	9.470 3033	9.395 0077	9.319 8052	140
141	9.542 4473	9.466 5198	9.390 6863	9.314 9466	141
142	9.539 2022	9.462 7362	9.386 3649	9.310 0881	142
143	9.535 9572	9.458 9527	9.382 0435	9.305 2296	143
144	9.532 7121	9.455 1691	9.377 7222	9.300 3710	144
145	9.529 4671	9.451 3856	9.373 4008	9.295 5125	145
146	9.526 2220	9.447 6020	9.369 0794	9.290 6539	146
147	9.522 9769	9.443 8185	9.364 7581	9.285 7954	147
148	9.519 7319	9.440 0349	9.360 4367	9.280 9369	148
149	9.516 4868	9.436 2514	9.356 1153	9.276 0783	149
150	9.513 2418	9.432 4678	9.351 7939	9.271 2198	150

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	¾%	⅞%	1%	1⅛%	n
151	0.3235 9122	0.2683 3931	0.2225 7304	0.1846 5509	151
152	0.3211 8235	0.2660 1170	0.2203 6935	0.1826 0083	152
153	0.3187 9141	0.2637 0429	0.2181 8747	0.1805 6942	153
154	0.3164 1828	0.2614 1689	0.2160 2720	0.1785 6061	154
155	0.3140 6280	0.2591 4934	0.2138 8832	0.1765 7415	155
156	0.3117 2487	0.2569 0145	0.2117 7061	0.1746 0979	156
157	0.3094 0434	0.2546 7306	0.2096 7387	0.1726 6729	157
158	0.3071 0108	0.2524 6400	0.2075 9789	0.1707 4639	158
159	0.3048 1496	0.2502 7410	0.2055 4247	0.1688 4686	159
160	0.3025 4587	0.2481 0320	0.2035 0739	0.1669 6847	160
161	0.3002 9367	0.2459 5113	0.2014 9247	0.1651 1097	161
162	0.2980 5823	0.2438 1772	0.1994 9750	0.1632 7413	162
163	0.2958 3944	0.2417 0282	0.1975 2227	0.1614 5774	163
164	0.2936 3716	0.2396 0627	0.1955 6661	0.1596 6154	164
165	0.2914 5127	0.2375 2790	0.1936 3030	0.1578 8533	165
166	0.2892 8166	0.2354 6756	0.1917 1317	0.1561 2888	166
167	0.2871 2820	0.2334 2509	0.1898 1502	0.1543 9197	167
168	0.2849 9077	0.2314 0033	0.1879 3566	0.1526 7439	168
169	0.2828 6925	0.2293 9314	0.1860 7492	0.1509 7591	169
170	0.2807 6352	0.2274 0336	0.1842 3259	0.1492 9632	170
171	0.2786 7347	0.2254 3084	0.1824 0850	0.1476 3543	171
172	0.2765 9898	0.2234 7543	0.1806 0248	0.1459 9300	172
173	0.2745 3993	0.2215 3699	0.1788 1434	0.1443 6885	173
174	0.2724 9621	0.2196 1535	0.1770 4390	0.1427 6277	174
175	0.2704 6770	0.2177 1039	0.1752 9099	0.1411 7456	175
176	0.2684 5429	0.2158 2194	0.1735 5543	0.1396 0401	176
177	0.2664 5587	0.2139 4988	0.1718 3706	0.1380 5094	177
178	0.2644 7233	0.2120 9406	0.1701 3571	0.1365 1515	178
179	0.2625 0355	0.2102 5433	0.1684 5119	0.1349 9644	179
180	0.2605 4943	0.2084 3057	0.1667 8336	0.1334 9462	180
181	0.2586 0986	0.2066 2262	0.1651 3204	0.1320 0951	181
182	0.2566 8472	0.2048 3035	0.1634 9707	0.1305 4093	182
183	0.2547 7392	0.2030 5363	0.1618 7829	0.1290 8868	183
184	0.2528 7734	0.2012 9233	0.1602 7553	0.1276 5259	184
185	0.2509 9488	0.1995 4630	0.1586 8864	0.1262 3247	185
186	0.2491 2643	0.1978 1541	0.1571 1747	0.1248 2816	186
187	0.2472 7189	0.1960 9954	0.1555 6185	0.1234 3946	187
188	0.2454 3116	0.1943 9855	0.1540 2163	0.1220 6622	188
189	0.2436 0413	0.1927 1232	0.1524 9667	0.1207 0825	189
190	0.2417 9070	0.1910 4071	0.1509 8680	0.1193 6539	190
191	0.2399 9077	0.1893 8361	0.1494 9188	0.1180 3747	191
192	0.2382 0423	0.1877 4087	0.1480 1176	0.1167 2432	192
193	0.2364 3100	0.1861 1239	0.1465 4630	0.1154 2578	193
194	0.2346 7097	0.1844 9803	0.1450 9535	0.1141 4169	194
195	0.2329 2404	0.1828 9768	0.1436 5876	0.1128 7188	195
196	0.2311 9011	0.1813 1121	0.1422 3640	0.1116 1620	196
197	0.2294 6909	0.1797 3849	0.1408 2811	0.1103 7448	197
198	0.2277 6089	0.1781 7942	0.1394 3378	0.1091 4658	198
199	0.2260 6540	0.1766 3388	0.1380 5324	0.1079 3234	199
200	0.2243 8253	0.1751 0174	0.1366 8638	0.1067 3161	200

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	9.509 9967	9.428 6843	9.347 4726	9.266 3613	151
152	9.506 7517	9.424 9008	9.343 1512	9.261 5027	152
153	9.503 5066	9.421 1172	9.338 8298	9.256 6442	153
154	9.500 2616	9.417 3336	9.334 5084	9.251 7857	154
155	9.497 0165	9.413 5501	9.330 1871	9.246 9271	155
156	9.493 7715	9.409 7666	9.325 8657	9.242 0686	156
157	9.490 5264	9.405 9830	9.321 5443	9.237 2101	157
158	9.487 2813	9.402 1995	9.317 2229	9.232 3515	158
159	9.484 0363	9.398 4159	9.312 9016	9.227 4930	159
160	9.480 7912	9.394 6324	9.308 5802	9.222 6345	160
161	9.477 5462	9.390 8488	9.304 2588	9.217 7759	161
162	9.474 3011	9 387 0653	9 299 9374	9 212 9174	162
163	9.471 0561	9.383 2817	9.295 6161	9.208 0589	163
164	9.467 8110	9.379 4982	9.291 2947	9.203 2003	164
165	9.464 5660	9.375 7146	9.286 9733	9.198 3418	165
166	9.461 3209	9.371 9311	9.282 6519	9.193 4833	166
167	9.458 0758	9.368 1475	9.278 3306	9.188 6247	167
168	9.454 8308	9.364 3640	9.274 0092	9.183 7662	168
169	9.451 5857	9.360 5804	9.269 6878	9.178 9077	169
170	9.448 3407	9.356 7969	9.265 3665	9.174 0491	170
171	9.445 0956	9.353 0133	9.261 0451	9.169 1906	171
172	9.441 8506	9.349 2298	9.256 7237	9.164 3320	172
173	9.438 6055	9.345 4462	9.252 4023	9.159 4735	173
174	9 435 3605	9 341 6627	9 248 0810	9 154 6150	174
175	9.432 1154	9.337 8792	9.243 7596	9.149 7564	175
176	9.428 8704	9.334 0956	9.239 4382	9.144 8979	176
177	9.425 6253	9.330 3121	9.235 1168	9.140 0394	177
178	9.422 3802	9.326 5285	9.230 7955	9.135 1808	178
179	9.419 1352	9.322 7450	9.226 4741	9.130 3223	179
180	9.415 8901	9.318 9614	9.222 1527	9.125 4638	180
181	9.412 6451	9.315 1779	9.217 8313	9.120 6052	181
182	9.409 4000	9.311 3943	9.213 5100	9.115 7467	182
183	9.406 1550	9.307 6108	9.209 1886	9.110 8882	183
184	9.402 9099	9.303 8272	9.204 8672	9.106 0296	184
185	9.399 6649	9.300 0437	9.200 5458	9.101 1711	185
186	9.396 4198	9.296 2601	9.196 2245	9.096 3126	186
187	9.393 1748	9.292 4766	9.191 9031	9.091 4540	187
188	9.389 9297	9.288 6930	9.187 5817	9.086 5955	188
189	9.386 6846	9.284 9095	9.183 2604	9.081 7370	189
190	9.383 4396	9.281 1259	9.178 9390	9.076 8784	190
191	9.380 1945	9.277 3424	9.174 6176	9.072 0199	191
192	9.376 9495	9.273 5588	9.170 2962	9.067 1614	192
193	9.373 7044	9.269 7753	9.165 9749	9.062 3028	193
194	9.370 4594	9.265 9917	9.161 6535	9.057 4443	194
195	9.367 2143	9.262 2082	0.157 3321	9.052 5858	195
196	9.363 9693	9.258 4247	9.153 0107	9.047 7272	196
197	9.360 7242	9.254 6411	9.148 6894	9.042 8687	197
198	9.357 4791	9.250 8576	9.144 3680	9.038 0101	198
199	9.354 2341	9.247 0740	9.140 0466	9.033 1516	199
200	9.350 9890	9.243 2904	9.135 7252	9.028 2931	200

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.9876 5432	0.9864 3650	0.9852 2167	0.9828 0098	1
2	0.9754 6106	0.9730 5696	0.9706 6175	0.9658 9777	2
3	0.9634 1833	0.9598 5890	0.9563 1699	0.9492 8528	3
4	0.9515 2428	0.9468 3986	0.9421 8423	0.9329 5851	4
5	0.9397 7706	0.9339 9739	0.9282 6033	0.9169 1254	5
6	0.9281 7488	0.9213 2912	0.9145 4219	0.9011 4254	6
7	0.9167 1593	0.9088 3267	0.9010 2679	0.8856 4378	7
8	0.9053 9845	0.8965 0571	0.8877 1112	0.8704 1157	8
9	0.8942 2069	0.8843 4596	0.8745 9224	0.8554 4135	9
10	0.8831 8093	0.8723 5113	0.8616 6723	0.8407 2860	10
11	0.8722 7746	0.8605 1899	0.8489 3323	0.8262 6889	11
12	0.8615 0860	0.8488 4734	0.8363 8742	0.8120 5788	12
13	0.8508 7269	0.8373 3400	0.8240 2702	0.7980 9128	13
14	0.8403 6809	0.8259 7682	0.8118 4928	0.7843 6490	14
15	0.8299 9318	0.8147 7368	0.7998 5150	0.7708 7459	15
16	0.8197 4635	0.8037 2250	0.7880 3104	0.7576 1631	16
17	0.8096 2602	0.7928 2120	0.7763 8526	0.7445 8605	17
18	0.7996 3064	0.7820 6777	0.7649 1159	0.7317 7990	18
19	0.7897 5866	0.7714 6020	0.7536 0747	0.7191 9401	19
20	0.7800 0855	0.7609 9649	0.7424 7042	0.7068 2458	20
21	0.7703 7881	0.7506 7472	0.7314 9795	0.6946 6789	21
22	0.7608 6796	0.7404 9294	0.7206 8763	0.6827 2028	22
23	0.7514 7453	0.7304 4926	0.7100 3708	0.6709 7817	23
24	0.7421 9707	0.7205 4181	0.6995 4392	0.6594 3800	24
25	0.7330 3414	0.7107 6874	0.6892 0583	0.6480 9632	25
26	0.7239 8434	0.7011 2823	0.6790 2052	0.6369 4970	26
27	0.7150 4626	0.6916 1847	0.6689 8574	0.6259 9479	27
28	0.7062 1853	0.6822 3771	0.6590 9925	0.6152 2829	28
29	0.6974 9978	0.6729 8417	0.6493 5887	0.6046 4697	29
30	0.6888 8867	0.6638 5615	0.6397 6243	0.5942 4764	30
31	0.6803 8387	0.6548 5194	0.6303 0781	0.5840 2716	31
32	0.6719 8407	0.6459 6985	0.6209 9292	0.5739 8247	32
33	0.6636 8797	0.6372 0824	0.6118 1568	0.5641 1053	33
34	0.6554 9429	0.6285 6546	0.6027 7407	0.5544 0839	34
35	0.6474 0177	0.6200 3991	0.5938 6608	0.5448 7311	35
36	0.6394 0916	0.6116 3000	0.5850 8974	0.5355 0183	36
37	0.6315 1522	0.6033 3416	0.5764 4309	0.5262 9172	37
38	0.6237 1873	0.5951 5083	0.5679 2423	0.5172 4002	38
39	0.6160 1850	0.5870 7850	0.5595 3126	0.5083 4400	39
40	0.6084 1334	0.5791 1566	0.5512 6232	0.4996 0098	40
41	0.6009 0206	0.5712 6083	0.5431 1559	0.4910 0834	41
42	0.5934 8352	0.5635 1253	0.5350 8925	0.4825 6348	42
43	0.5861 5656	0.5558 6933	0.5271 8153	0.4742 6386	43
44	0.5789 2006	0.5483 2979	0.5193 9067	0.4661 0699	44
45	0.5717 7290	0.5408 9252	0.5117 1494	0.4580 9040	45
46	0.5647 1397	0.5335 5612	0.5041 5265	0.4502 1170	46
47	0.5577 4219	0.5263 1923	0.4967 0212	0.4424 6850	47
48	0.5508 5649	0.5191 8050	0.4893 6170	0.4348 5848	48
49	0.5440 5579	0.5121 3860	0.4821 2975	0.4273 7934	49
50	0.5373 3905	0.5051 9220	0.4750 0468	0.4200 2883	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	9.994 6050	9.994 0691	9.993 5340	9.992 4656	1
2	9.989 2099	9.988 1383	9.987 0679	9.984 9312	2
3	9.983 8149	9.982 2074	9.980 6019	9.977 3967	3
4	9.978 4199	9.976 2765	9.974 1358	9.969 8623	4
5	9.973 0248	9.970 3457	9.967 6698	9.962 3279	5
6	9.967 6298	9.964 4148	9.961 2037	9.954 7935	6
7	9.962 2348	9.958 4839	9.954 7377	9.947 2591	7
8	9.956 8397	9.952 5531	9.948 2717	9.939 7247	8
9	9.951 4447	9.946 6222	9.941 8056	9.932 1902	9
10	9.946 0496	9.940 6913	9.935 3396	9.924 6558	10
11	9.940 6546	9.934 7605	9.928 8735	9.917 1214	11
12	9.935 2596	9.928 8296	9.922 4075	9.909 5870	12
13	9.929 8646	9.922 8987	9.915 9415	9.902 0526	13
14	9.924 4696	9.916 9679	9.909 4754	9.894 5181	14
15	9.919 0745	9.911 0370	9.903 0094	9.886 9837	15
16	9.913 6795	9.905 1061	9.896 5433	9.879 4493	16
17	9.908 2845	9.889 1753	9.890 0773	9.871 9149	17
18	9.902 8894	9.893 2444	9.883 6112	9.864 3805	18
19	9.897 4944	9.887 3135	9.877 1452	9.856 8461	19
20	9.892 0994	9.881 3827	9.870 6792	9.849 3116	20
21	9.886 7043	9.875 4518	9.864 2131	9.841 7772	21
22	9.881 3093	9.869 5209	9.857 7471	9.834 2428	22
23	9.875 9143	9.863 5901	9.851 2810	9.826 7084	23
24	9.870 5192	9.857 6592	9.844 8150	9.819 1740	24
25	9.865 1242	9.851 7283	9.838 3489	9.811 6396	25
26	9.859 7292	9.845 7975	9.831 8829	9.804 1051	26
27	9.854 3341	9.839 8666	9.825 4169	9.796 5707	27
28	9.848 9391	9.833 9357	9.818 9508	9.789 0363	28
29	9.843 5441	9.828 0049	9.812 4848	9.781 5019	29
30	9.838 1490	9.822 0740	9.806 0187	9.773 9675	30
31	9.832 7540	9.816 1431	9.799 5527	9.766 4330	31
32	9.827 3590	9.810 2122	9.793 0866	9.758 8986	32
33	9.821 9639	9.804 2814	9.786 6206	9.751 3642	33
34	9.816 5689	9.798 3505	9.780 1546	9.743 8298	34
35	9.811 1739	9.792 4196	9.773 6885	9.736 2954	35
36	9.805 7789	9.786 4888	9.767 2225	9.728 7610	36
37	9.800 3838	9.780 5579	9.760 7564	9.721 2265	37
38	9.794 9888	9.774 6270	9.754 2904	9.713 6921	38
39	9.789 5938	9.768 6962	9.747 8244	9.706 1577	39
40	9.784 1987	9.762 7653	9.741 3583	9.698 6233	40
41	9.778 8037	9.756 8344	9.734 8923	9.691 0889	41
42	9.773 4087	9.750 9036	9.728 4262	9.683 5544	42
43	9.768 0136	9.744 9727	9.721 9602	9.676 0200	43
44	9.762 6186	9.739 0418	9.715 4941	9.668 4856	44
45	9.757 2236	9.733 1110	9.709 0281	9.660 9512	45
46	9.751 8285	9.727 1801	9.702 5621	9.653 4168	46
47	9.746 4335	9.721 2492	9.696 0960	9.645 8824	47
48	9.741 0385	9.715 3184	9.689 6300	9.638 3479	48
49	9.735 6434	9.709 3875	9.683 1639	9.630 8135	49
50	9.730 2484	9.703 4566	9.676 6979	9.623 2791	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	0.5307 0524	0.4983 4003	0.4679 8491	0.4128 0475	51
52	0.5241 5332	0.4915 8079	0.4610 6887	0.4057 0492	52
53	0.5176 8229	0.4849 1323	0.4542 5505	0.3987 2719	53
54	0.5112 9115	0.4783 3611	0.4475 4192	0.3918 6947	54
55	0.5049 7892	0.4718 4820	0.4409 2800	0.3851 2970	55
56	0.4987 4461	0.4654 4829	0.4344 1182	0.3785 0585	56
57	0.4925 8727	0.4591 3518	0.4279 9194	0.3719 9592	57
58	0.4865 0594	0.4529 0770	0.4216 6694	0.3655 9796	58
59	0.4804 9970	0.4467 6468	0.4154 3541	0.3593 1003	59
60	0.4745 6760	0.4407 0499	0.4092 9597	0.3531 3025	60
61	0.4687 0874	0.4347 2749	0.4032 4726	0.3470 5676	61
62	0.4629 2222	0.4288 3106	0.3972 8794	0.3410 8772	62
63	0.4572 0713	0.4230 1461	0.3914 1669	0.3352 2135	63
64	0.4515 6259	0.4172 7705	0.3856 3221	0.3294 5587	64
65	0.4459 8775	0.4116 1731	0.3799 3321	0.3237 8956	65
66	0.4404 8173	0.4060 3434	0.3743 1843	0.3182 2069	66
67	0.4350 4368	0.4005 2709	0.3687 8663	0.3127 4761	67
68	0.4296 7277	0.3950 9454	0.3633 3658	0.3073 6866	68
69	0.4243 6817	0.3897 3568	0.3579 6708	0.3020 8222	69
70	0.4191 2905	0.3844 4949	0.3526 7692	0.2968 8670	70
71	0.4139 5462	0.3792 3501	0.3474 6495	0.2917 8054	71
72	0.4088 4407	0.3740 9126	0.3423 3000	0.2867 6221	72
73	0.4037 9661	0.3690 1727	0.3372 7093	0.2818 3018	73
74	0.3988 1147	0.3640 1210	0.3322 8663	0.2769 8298	74
75	0.3938 8787	0.3590 7483	0.3273 7599	0.2722 1914	75
76	0.3890 2506	0.3542 0451	0.3225 3793	0.2675 3724	76
77	0.3842 2228	0.3494 0026	0.3177 7136	0.2629 3586	77
78	0.3794 7879	0.3446 6117	0.3130 7523	0.2584 1362	78
79	0.3747 9387	0.3399 8636	0.3084 4850	0.2539 6916	79
80	0.3701 6679	0.3353 7495	0.3038 9015	0.2496 0114	80
81	0.3655 9683	0.3308 2609	0.2993 9916	0.2453 0825	81
82	0.3610 8329	0.3263 3893	0.2949 7454	0.2410 8919	82
83	0.3566 2547	0.3219 1263	0.2906 1531	0.2369 4269	83
84	0.3522 2268	0.3175 4637	0.2863 2050	0.2328 6751	84
85	0.3478 7426	0.3132 3933	0.2820 8917	0.2288 6242	85
86	0.3435 7951	0.3089 9071	0.2779 2036	0.2249 2621	86
87	0.3393 3779	0.3047 9971	0.2738 1316	0.2210 5770	87
88	0.3351 4843	0.3006 6556	0.2697 6666	0.2172 5572	88
89	0.3310 1080	0.2965 8748	0.2657 7997	0.2135 1914	89
90	0.3269 2425	0.2925 6472	0.2618 5218	0.2098 4682	90
91	0.3228 8814	0.2885 9652	0.2579 8245	0.2062 3766	91
92	0.3189 0187	0.2846 8214	0.2541 6990	0.2026 9057	92
93	0.3149 6481	0.2808 2085	0.2504 1369	0.1992 0450	93
94	0.3110 7636	0.2770 1194	0.2467 1300	0.1957 7837	94
95	0.3072 3591	0.2732 5468	0.2430 6699	0.1924 1118	95
96	0.3034 4287	0.2695 4839	0.2394 7487	0.1891 0190	96
97	0.2996 9666	0.2658 9237	0.2359 3583	0.1858 4953	97
98	0.2959 9670	0.2622 8594	0.2324 4909	0.1826 5310	98
99	0.2923 4242	0.2587 2843	0.2290 1389	0.1795 1165	99
100	0.2887 3326	0.2552 1916	0.2256 2944	0.1764 2422	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	9.724 8534	9.697 5258	9.670 2318	9.615 7447	51
52	9.719 4583	9.691 5949	9.663 7658	9.608 2103	52
53	9.714 0633	9.685 6640	9.657 2998	9.600 6759	53
54	9.708 6683	9.679 7332	9.650 8337	9.593 1414	54
55	9.703 2732	9.673 8023	9.644 3677	9.585 6070	55
56	9.697 8782	9.667 8714	9.637 9016	9.578 0726	56
57	9.692 4832	9.661 9406	9.631 4356	9.570 5382	57
58	9.687 0882	9.656 0097	9.624 9696	9.563 0038	58
59	9.681 6931	9.650 0788	9.618 5035	9.555 4693	59
60	9.676 2981	9.644 1480	9.612 0375	9.547 9349	60
61	9.670 9031	9.638 2171	9.605 5714	9.540 4005	61
62	9.665 5080	9.632 2862	9.599 1054	9.532 8661	62
63	9.660 1130	9.626 3554	9.592 6393	9.525 3317	63
64	9.654 7180	9.620 4245	9.586 1733	9.517 7973	64
65	9.649 3229	9.614 4936	9.579 7073	9.510 2628	65
66	9.643 9279	9.608 5628	9.573 2412	9.502 7284	66
67	9.638 5329	9.602 6319	9.566 7752	9.495 1940	67
68	9.633 1378	9.596 7010	9.560 3091	9.487 6596	68
69	9.627 7428	9.590 7702	9.553 8431	9.480 1252	69
70	9.622 3478	9.584 8393	9.547 3770	9.472 5907	70
71	9.616 9527	9.578 9084	9.540 9110	9.465 0563	71
72	9.611 5577	9.572 9776	9.534 4450	9.457 5219	72
73	9.606 1627	9.567 0467	9.527 9789	9.449 9875	73
74	9.600 7676	9.561 1158	9.521 5129	9.442 4531	74
75	9.595 3726	9.555 1850	9.515 0468	9.434 9187	75
76	9.589 9776	9.549 2541	9.508 5808	9.427 3842	76
77	9.584 5825	9.543 3232	9.502 1148	9.419 8498	77
78	9.579 1875	9.537 3924	9.495 6487	9.412 3154	78
79	9.573 7925	9.531 4615	9.489 1827	9.404 7810	79
80	9.568 3974	9.525 5306	9.482 7166	9.397 2466	80
81	9.563 0024	9.519 5998	9.476 2506	9.389 7122	81
82	9.557 6074	9.513 6689	9.469 7845	9.382 1777	82
83	9.552 2124	9.507 7380	9.463 3185	9.374 6433	83
84	9.546 8173	9.501 8072	9.456 8525	9.367 1089	84
85	9.541 4223	9.495 8763	9.450 3864	9.359 5745	85
86	9.536 0273	9.489 9454	9.443 9204	9.352 0401	86
87	9.530 6322	9.484 0146	9.437 4543	9.344 5056	87
88	9.525 2372	9.478 0837	9.430 9883	9.336 9712	88
89	9.519 8422	9.472 1528	9.424 5222	9.329 4368	89
90	9.514 4471	9.466 2220	9.418 0562	9.321 9024	90
91	9.509 0521	9.460 2911	9.411 5902	9.314 3680	91
92	9.503 6571	9.454 3602	9.405 1241	9.306 8336	92
93	9.498 2620	9.448 4294	9.398 6581	9.299 2991	93
94	9.492 8670	9.442 4985	9.392 1920	9.291 7647	94
95	9.487 4720	9.436 5676	9.385 7260	9.284 2303	95
96	9.482 0769	9.430 6367	9.379 2599	9.276 6959	96
97	9.476 6819	9.424 7059	9.372 7939	9.269 1615	97
98	9.471 2869	9.418 7750	9.366 3279	9.261 6270	98
99	9.465 8918	9.412 8441	9.359 8618	9.254 0926	99
100	9.460 4968	9.406 9133	9.353 3958	9.246 5582	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	2%	2¼%	2½%	2¾%	n
1	0.9803 9216	0.9779 9511	0.9756 0976	0.9732 3601	1
2	0.9611 6878	0.9564 7444	0.9518 1440	0.9471 8833	2
3	0.9423 2233	0.9354 2732	0.9285 9941	0.9218 3779	3
4	0.9238 4543	0.9148 4335	0.9059 5064	0.8971 6573	4
5	0.9057 3081	0.8947 1232	0.8838 5429	0.8731 5400	5
6	0.8879 7138	0.8750 2427	0.8622 9687	0.8497 8491	6
7	0.8705 6018	0.8557 6946	0.8412 6524	0.8270 4128	7
8	0.8534 9037	0.8369 3835	0.8207 4657	0.8049 0635	8
9	0.8367 5527	0.8185 2161	0.8007 2836	0.7833 6385	9
10	0.8203 4830	0.8005 1013	0.7811 9840	0.7623 9791	10
11	0.8042 6304	0.7828 9499	0.7621 4478	0.7419 9310	11
12	0.7884 9318	0.7656 6748	0.7435 5589	0.7221 3440	12
13	0.7730 3253	0.7488 1905	0.7254 2038	0.7028 0720	13
14	0.7578 7502	0.7323 4137	0.7077 2720	0.6839 9728	14
15	0.7430 1473	0.7162 2628	0.6904 6556	0.6656 9078	15
16	0.7284 4581	0.7004 6580	0.6736 2493	0.6478 7424	16
17	0.7141 6256	0.6850 5212	0.6571 9506	0.6305 3454	17
18	0.7001 5937	0.6699 7763	0.6411 6591	0.6136 5892	18
19	0.6864 3076	0.6552 3484	0.6255 2772	0.5972 3496	19
20	0.6729 7133	0.6408 1647	0.6102 7094	0.5812 5057	20
21	0.6597 7582	0.6267 1538	0.5953 8629	0.5656 9398	21
22	0.6468 3904	0.6129 2457	0.5808 6467	0.5505 5375	22
23	0.6341 5592	0.5994 3724	0.5666 9724	0.5358 1874	23
24	0.6217 2149	0.5862 4668	0.5528 7535	0.5214 7809	24
25	0.6095 3087	0.5733 4639	0.5393 9059	0.5075 2126	25
26	0.5975 7928	0.5607 2997	0.5262 3472	0.4939 3796	26
27	0.5858 6204	0.5483 9117	0.5133 9973	0.4807 1821	27
28	0.5743 7455	0.5363 2388	0.5008 7778	0.4678 5227	28
29	0.5631 1231	0.5245 2213	0.4886 6125	0.4553 3068	29
30	0.5520 7089	0.5129 8008	0.4767 4269	0.4431 4421	30
31	0.5412 4597	0.5016 9201	0.4651 1481	0.4312 8391	31
32	0.5306 3330	0.4906 5233	0.4537 7055	0.4197 4103	32
33	0.5202 2873	0.4798 5558	0.4427 0298	0.4085 0708	33
34	0.5100 2817	0.4692 9641	0.4319 0534	0.3975 7380	34
35	0.5000 2761	0.4589 6960	0.4213 7107	0.3869 3314	35
36	0.4902 2315	0.4488 7002	0.4110 9372	0.3765 7727	36
37	0.4806 1093	0.4389 9268	0.4010 6705	0.3664 9856	37
38	0.4711 8719	0.4293 3270	0.3912 8492	0.3566 8959	38
39	0.4619 4822	0.4198 8528	0.3817 4139	0.3471 4316	39
40	0.4528 9042	0.4106 4575	0.3724 3062	0.3378 5222	40
41	0.4440 1021	0.4016 0954	0.3633 4695	0.3288 0995	41
42	0.4353 0413	0.3927 7216	0.3544 8483	0.3200 0968	42
43	0.4267 6875	0.3841 2925	0.3458 3886	0.3114 4495	43
44	0.4184 0074	0.3756 7653	0.3374 0376	0.3031 0944	44
45	0.4101 9680	0.3674 0981	0.3291 7440	0.2949 9702	45
46	0.4021 5373	0.3593 2500	0.3211 4576	0.2871 0172	46
47	0.3942 6836	0.3514 1809	0.3133 1294	0.2794 1773	47
48	0.3865 3761	0.3436 8518	0.3056 7116	0.2719 3940	48
49	0.3789 5844	0.3361 2242	0.2982 1576	0.2646 6122	49
50	0.3715 2788	0.3287 2608	0.2909 4221	0.2575 7783	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	2%	2¼%	2½%	2¾%	n
1	9.991 3998	9.990 3367	9.989 2761	9.988 2182	1
2	9.982 7997	9.980 6734	9.978 5523	9.976 4363	2
3	9.974 1995	9.971 0100	9.967 8284	9.964 6545	3
4	9.965 5993	9.961 3467	9.957 1045	9.952 8727	4
5	9.956 9991	9.951 6834	9.946 3807	9.941 0908	5
6	9.948 3990	9.942 0201	9.935 6568	9.929 3090	6
7	9.939 7988	9.932 3568	9.924 9329	9.917 5272	7
8	9.931 1986	9.922 6935	9.914 2091	9.905 7454	8
9	9.922 5985	9.913 0301	9.903 4852	9.893 9635	9
10	9.913 9983	9.903 3668	9.892 7613	9.882 1817	10
11	9.905 3981	9.893 7035	9.882 0375	9.870 3999	11
12	9.896 7979	9.884 0402	9.871 3136	9.858 6180	12
13	9.888 1978	9.874 3769	9.860 5897	9.846 8362	13
14	9.879 5976	9.864 7136	9.849 8659	9.835 0544	14
15	9.870 9974	9.855 0502	9.839 1420	9.823 2725	15
16	9.862 3973	9.845 3869	9.828 4182	9.811 4907	16
17	9.853 7971	9.835 7236	9.817 6943	9.799 7089	17
18	9.845 1969	9.826 0603	9.806 9704	9.787 9271	18
19	9.836 5967	9.816 3970	9.796 2466	9.776 1452	19
20	9.827 9966	9.806 7337	9.785 5227	9.764 3634	20
21	9.819 3964	9.797 0703	9.774 7988	9.752 5816	21
22	9.810 7962	9.787 4070	9.764 0750	9.740 7997	22
23	9.802 1960	9.777 7437	9.753 3511	9.729 0179	23
24	9.793 5959	9.768 0804	9.742 6272	9.717 2361	24
25	9.784 9957	9.758 4171	9.731 9034	9.705 4542	25
26	9.776 3955	9.748 7538	9.721 1795	9.693 6724	26
27	9.767 7954	9.739 0904	9.710 4556	9.681 8906	27
28	9.759 1952	9.729 4271	9.699 7318	9.670 1087	28
29	9.750 5950	9.719 7638	9.689 0079	9.658 3269	29
30	9.741 9948	9.710 1005	9.678 2840	9.646 5451	30
31	9.733 3947	9.700 4372	9.667 5602	9.634 7633	31
32	9.724 7945	9.690 7739	9.656 8363	9.622 9814	32
33	9.716 1943	9.681 1106	9.646 1124	9.611 1996	33
34	9.707 5942	9.671 4472	9.635 3886	9.599 4178	34
35	9.698 9940	9.661 7839	9.624 6647	9.587 6359	35
36	9.690 3938	9.652 1206	9.613 9408	9.575 8541	36
37	9.681 7936	9.642 4573	9.603 2170	9.564 0723	37
38	9.673 1935	9.632 7940	9.592 4931	9.552 2904	38
39	9.664 5933	9.623 1306	9.581 7692	9.540 5086	39
40	9.655 9931	9.613 4673	9.571 0454	9.528 7268	40
41	9.647 3930	9.603 8040	9.560 3215	9.516 9449	41
42	9.638 7928	9.594 1407	9.549 5977	9.505 1631	42
43	9.630 1926	9.584 4774	9.538 8738	9.493 3813	43
44	9.621 5924	9.574 8141	9.528 1499	9.481 5995	44
45	9.612 9923	9.565 1507	9.517 4261	9.469 8176	45
46	9.604 3921	9.555 4874	9.506 7022	9.458 0358	46
47	9.595 7919	9.545 8241	9.495 9783	9.446 2540	47
48	9.587 1918	9.536 1608	9.485 2545	9.434 4721	48
49	9.578 5916	9.526 4975	9.474 5306	9.422 6903	49
50	9.569 9914	9.516 8342	9.463 8067	9.410 9085	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	2%	2¼%	2½%	2¾%	n
51	0.3642 4302	0.3214 9250	0.2838 4606	0.2506 8402	51
52	0.3571 0100	0.3144 1810	0.2769 2298	0.2439 7471	52
53	0.3500 9902	0.3074 9936	0.2701 6876	0.2374 4497	53
54	0.3432 3433	0.3007 3287	0.2635 7928	0.2310 9000	54
55	0.3365 0425	0.2941 1528	0.2571 5052	0.2249 0511	55
56	0.3299 0613	0.2876 4330	0.2508 7855	0.2188 8575	56
57	0.3234 3738	0.2813 1374	0.2447 5956	0.2130 2749	57
58	0.3170 9547	0.2751 2347	0.2387 8982	0.2073 2603	58
59	0.3108 7791	0.2690 6940	0.2329 6568	0.2017 7716	59
60	0.3047 8227	0.2631 4856	0.2272 8359	0.1963 7679	60
61	0.2988 0614	0.2573 5801	0.2217 4009	0.1911 2097	61
62	0.2929 4720	0.2516 9487	0.2163 3179	0.1860 0581	62
63	0.2872 0314	0.2461 5635	0.2110 5541	0.1810 2755	63
64	0.2815 7170	0.2407 3971	0.2059 0771	0.1761 8253	64
65	0.2760 5069	0.2354 4226	0.2008 8557	0.1714 6718	65
66	0.2706 3793	0.2302 6138	0.1959 8593	0.1668 7804	66
67	0.2653 3130	0.2251 9450	0.1912 0578	0.1624 1172	67
68	0.2601 2873	0.2202 3912	0.1865 4223	0.1580 6493	68
69	0.2550 2817	0.2153 9278	0.1819 9241	0.1538 3448	69
70	0.2500 2761	0.2106 5309	0.1775 5358	0.1497 1726	70
71	0.2451 2511	0.2060 1769	0.1732 2300	0.1457 1023	71
72	0.2403 1874	0.2014 8429	0.1689 9805	0.1418 1044	72
73	0.2356 0661	0.1970 5065	0.1648 7615	0.1380 1503	73
74	0.2309 8687	0.1927 1458	0.1608 5478	0.1343 2119	74
75	0.2264 5771	0.1884 7391	0.1569 3149	0.1307 2622	75
76	0.2220 1737	0.1843 2657	0.1531 0389	0.1272 2747	76
77	0.2176 6408	0.1802 7048	0.1493 6965	0.1238 2235	77
78	0.2133 9616	0.1763 0365	0.1457 2649	0.1205 0837	78
79	0.2092 1192	0.1724 2411	0.1421 7218	0.1172 8309	79
80	0.2051 0973	0.1686 2993	0.1387 0457	0.1141 4412	80
81	0.2010 8797	0.1649 1925	0.1353 2153	0.1110 8917	81
82	0.1971 4507	0.1612 9022	0.1320 2101	0.1081 1598	82
83	0.1932 7948	0.1577 4105	0.1288 0098	0.1052 2237	83
84	0.1894 8968	0.1542 6997	0.1256 5949	0.1024 0620	84
85	0.1857 7420	0.1508 7528	0.1225 9463	0.0996 6540	85
86	0.1821 3157	0.1475 5528	0.1196 0452	0.0969 9795	86
87	0.1785 6036	0.1443 0835	0.1166 8733	0.0944 0190	87
88	0.1750 5918	0.1411 3286	0.1138 4130	0.0918 7533	88
89	0.1716 2665	0.1380 2724	0.1110 6468	0.0894 1638	89
90	0.1682 6142	0.1349 8997	0.1083 5579	0.0870 2324	90
91	0.1649 6217	0.1320 1953	0.1057 1296	0.0846 9415	91
92	0.1617 2762	0.1291 1445	0.1031 3460	0.0824 2740	92
93	0.1585 5649	0.1262 7331	0.1006 1912	0.0802 2131	93
94	0.1554 4754	0.1234 9468	0.0981 6500	0.0780 7427	94
95	0.1523 9955	0.1207 7719	0.0957 7073	0.0759 8469	95
96	0.1494 1132	0.1181 1950	0.0934 3486	0.0739 5104	96
97	0.1464 8169	0.1155 2029	0.0911 5596	0.0719 7181	97
98	0.1436 0950	0.1129 7828	0.0889 3264	0.0700 4556	98
99	0.1407 9363	0.1104 9221	0.0867 6355	0.0681 7086	99
100	0.1380 3297	0.1080 6084	0.0846 4737	0.0663 4634	100

$\log v^n$

n	2%	2¼%	2½%	2¾%	n
51	9.561 3912	9.507 1708	9.453 0829	9.399 1266	51
52	9.552 7911	9.497 5075	9.442 3590	9.387 3448	52
53	9.544 1909	9.487 8442	9.431 6351	9.375 5630	53
54	9.535 5907	9.478 1809	9.420 9113	9.363 7812	54
55	9.526 9906	9.468 5176	9.410 1874	9.351 9993	55
56	9.518 3904	9.458 8543	9.399 4635	9.340 2175	56
57	9.509 7902	9.449 1909	9.388 7397	9.328 4357	57
58	9.501 1900	9.439 5276	9.378 0158	9.316 6538	58
59	9.492 5899	9.429 8643	9.367 2919	9.304 8720	59
60	9.483 9897	9.420 2010	9.356 5681	9.293 0902	60
61	9.475 3895	9.410 5377	9.345 8442	9.281 3083	61
62	9.466 7893	9.400 8744	9.335 1203	9.269 5265	62
63	9.458 1892	9.391 2110	9.324 3965	9.257 7447	63
64	9.449 5890	9.381 5477	9.313 6726	9.245 9628	64
65	9.440 9888	9.371 8844	9.302 9487	9.234 1810	65
66	9.432 3887	9.362 2211	9.292 2249	9.222 3992	66
67	9.423 7885	9.352 5578	9.281 5010	9.210 6174	67
68	9.415 1883	9.342 8945	9.270 7772	9.198 8355	68
69	9.406 5881	9.333 2311	9.260 0533	9.187 0537	69
70	9.397 9880	9.323 5678	9.249 3294	9.175 2719	70
71	9.389 3878	9.313 9045	9.238 6056	9.163 4900	71
72	9.380 7876	9.304 2412	9.227 8817	9.151 7082	72
73	9.372 1875	9.294 5779	9.217 1578	9.139 9264	73
74	9.363 5873	9.284 9146	9.206 4340	9.128 1445	74
75	9.354 9871	9.275 2512	9.195 7101	9.116 3627	75
76	9.346 3869	9.265 5879	9.184 9862	9.104 5809	76
77	9.337 7868	9.255 9246	9.174 2624	9.092 7991	77
78	9.329 1866	9.246 2613	9.163 5385	9.081 0172	78
79	9.320 5864	9.236 5980	9.152 8146	9.069 2354	79
80	9.311 9863	9.226 9347	9.142 0908	9.057 4536	80
81	9.303 3861	9.217 2713	9.131 3669	9.045 6717	81
82	9.294 7859	9.207 6080	9.120 6430	9.033 8899	82
83	9.286 1857	9.197 9447	9.109 9192	9.022 1081	83
84	9.277 5856	9.188 2814	9.099 1953	9.010 3262	84
85	9.268 9854	9.178 6181	9.088 4714	8.998 5444	85
86	9.260 3852	9.168 9548	9.077 7476	8.986 7626	86
87	9.251 7851	9.159 2914	9.067 0237	8.974 9807	87
88	9.243 1849	9.149 6281	9.056 2998	8.963 1989	88
89	9.234 5847	9.139 9648	9.045 5760	8.951 4171	89
90	9.225 9845	9.130 3015	9.034 8521	8.939 6353	90
91	9.217 3844	9.120 6382	9.024 1282	8.927 8534	91
92	9.208 7842	9.110 9749	9.013 4044	8.916 0716	92
93	9.200 1840	9.101 3115	9.002 6805	8.904 2898	93
94	9.191 5839	9.091 6482	8.991 9567	8.892 5079	94
95	9.182 9837	9.081 9849	8.981 2328	8.880 7261	95
96	9.174 3835	9.072 3216	8.970 5089	8.868 9443	96
97	9.165 7833	9.062 6583	8.959 7851	8.857 1624	97
98	9.157 1832	9.052 9950	8.949 0612	8.845 3806	98
99	9.148 5830	9.043 3316	8.938 3373	8.833 5988	99
100	9.139 9828	9.033 6683	8.927 6135	8.821 8169	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	3%	3½%	4%	4½%	n
1	0.9708 7379	0.9661 8357	0.9615 3846	0.9569 3780	1
2	0.9425 9591	0.9335 1070	0.9245 5621	0.9157 2995	2
3	0.9151 4166	0.9019 4271	0.8889 9636	0.8762 9660	3
4	0.8884 8705	0.8714 4223	0.8548 0419	0.8385 6134	4
5	0.8626 0878	0.8419 7317	0.8219 2711	0.8024 5105	5
6	0.8374 8426	0.8135 0064	0.7903 1453	0.7678 9574	6
7	0.8130 9151	0.7859 9096	0.7599 1781	0.7348 2846	7
8	0.7894 0923	0.7594 1156	0.7306 9021	0.7031 8513	8
9	0.7664 1673	0.7337 3097	0.7025 8674	0.6729 0443	9
10	0.7440 9391	0.7089 1881	0.6755 6417	0.6439 2768	10
11	0.7224 2128	0.6849 4571	0.6495 8093	0.6161 9874	11
12	0.7013 7988	0.6617 8330	0.6245 9705	0.5896 6386	12
13	0.6809 5134	0.6394 0415	0.6005 7409	0.5642 7164	13
14	0.6611 1781	0.6177 8179	0.5774 7508	0.5399 7286	14
15	0.6418 6195	0.5968 9062	0.5552 6450	0.5167 2044	15
16	0.6231 6694	0.5767 0591	0.5339 0818	0.4944 6932	16
17	0.6050 1645	0.5572 0378	0.5133 7325	0.4731 7639	17
18	0.5873 9461	0.5383 6114	0.4936 2812	0.4528 0037	18
19	0.5702 8603	0.5201 5569	0.4746 4242	0.4333 0179	19
20	0.5536 7575	0.5025 6588	0.4563 8695	0.4146 4286	20
21	0.5375 4928	0.4855 7090	0.4388 3360	0.3967 8743	21
22	0.5218 9250	0.4691 5063	0.4219 5539	0.3797 0089	22
23	0.5066 9175	0.4532 8563	0.4057 2633	0.3633 5013	23
24	0.4919 3374	0.4379 5713	0.3901 2147	0.3477 0347	24
25	0.4776 0557	0.4231 4699	0.3751 1680	0.3327 3060	25
26	0.4636 9473	0.4088 3767	0.3606 8923	0.3184 0248	26
27	0.4501 8906	0.3950 1224	0.3468 1657	0.3046 9137	27
28	0.4370 7675	0.3816 5434	0.3334 7747	0.2915 7069	28
29	0.4243 4636	0.3687 4815	0.3206 5141	0.2790 1502	29
30	0.4119 8676	0.3562 7841	0.3083 1867	0.2670 0002	30
31	0.3999 8715	0.3442 3035	0.2964 6026	0.2555 0241	31
32	0.3883 3703	0.3325 8971	0.2850 5794	0.2444 9991	32
33	0.3770 2625	0.3213 4271	0.2740 9417	0.2339 7121	33
34	0.3660 4490	0.3104 7605	0.2635 5209	0.2238 9589	34
35	0.3553 8340	0.2999 7686	0.2534 1547	0.2142 5444	35
36	0.3450 3243	0.2898 3272	0.2436 6872	0.2050 2817	36
37	0.3349 8294	0.2800 3161	0.2342 9685	0.1961 9921	37
38	0.3252 2615	0.2705 6194	0.2252 8543	0.1877 5044	38
39	0.3157 5355	0.2614 1250	0.2166 2061	0.1796 6549	39
40	0.3065 5684	0.2525 7247	0.2082 8904	0.1719 2870	40
41	0.2976 2800	0.2440 3137	0.2002 7793	0.1645 2507	41
42	0.2889 5922	0.2357 7910	0.1925 7493	0.1574 4026	42
43	0.2805 4294	0.2278 0590	0.1851 6820	0.1506 6054	43
44	0.2723 7178	0.2201 0231	0.1780 4635	0.1441 7276	44
45	0.2644 3862	0.2126 5924	0.1711 9841	0.1379 6437	45
46	0.2567 3653	0.2054 6787	0.1646 1386	0.1320 2332	46
47	0.2492 5876	0.1985 1968	0.1582 8256	0.1263 3810	47
48	0.2419 9880	0.1918 0645	0.1521 9476	0.1208 9771	48
49	0.2349 5029	0.1853 2024	0.1463 4112	0.1156 9158	49
50	0.2281 0708	0.1790 5337	0.1407 1262	0.1107 0965	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	3%	3½%	4%	4½%	n
1	9.987 1628	9.985 0597	9.982 9667	9.980 8837	1
2	9.974 3256	9.970 1193	9.965 9333	9.961 7674	2
3	9.961 4883	9.955 1790	9.948 9000	9.942 6511	3
4	9.948 6511	9.940 2386	9.931 8666	9.923 5348	4
5	9.935 8139	9.925 2983	9.914 8333	9.904 4185	5
6	9.922 9767	9.910 3579	9.897 8000	9.885 3023	6
7	9.910 1394	9.895 4176	9.880 7666	9.866 1860	7
8	9.897 3022	9 880 4772	9 863 7333	9 847 0697	8
9	9 884 4650	9.865 5369	9.846 6999	9.827 9534	9
10	9.871 6278	9.850 5965	9.829 6666	9.808 8371	10
11	9.858 7905	9.835 6562	9.812 6333	9.789 7208	11
12	9.845 9533	9.820 7158	9.795 5999	9.770 6045	12
13	9.833 1161	9.805 7755	9.778 5666	9.751 4882	13
14	9.820 2789	9.790 8351	9.761 5332	9.732 3719	14
15	9.807 4416	9.775 8948	9.744 4999	9.713 2556	15
16	9.794 6044	9.760 9544	9.727 4666	9.694 1394	16
17	9.781 7672	9.746 0141	9.710 4332	9.675 0231	17
18	9.768 9300	9.731 0737	9.693 3999	9.655 9068	18
19	9.756 0927	9.716 1334	9.676 3666	9.636 7905	19
20	9.743 2555	9.701 1930	9.659 3332	9.617 6742	20
21	9.730 4183	9.686 2527	9.642 2999	9.598 5579	21
22	9.717 5811	9.671 3123	9.625 2665	9.579 4416	22
23	9.704 7438	9.656 3720	9.608 2332	9.560 3253	23
24	9.691 9066	9.641 4316	9.591 1999	9.541 2090	24
25	9.679 0694	9.626 4913	9.574 1665	9.522 0927	25
26	9.666 2322	9.611 5509	9.557 1332	9.502 9764	26
27	9.653 3949	9.596 6106	9.540 0998	9.483 8602	27
28	9.640 5577	9.581 6702	9.523 0665	9.464 7439	28
29	9.627 7205	9.566 7299	9.506 0332	9.445 6276	29
30	9.614 8833	9.551 7895	9.488 9998	9.426 5113	30
31	9.602 0460	9.536 8492	9.471 9665	9.407 3950	31
32	9.589 2088	9.521 9088	9.454 9331	9.388 2787	32
33	9.576 3716	9.506 9685	9.437 8998	9.369 1624	33
34	9.563 5344	9.492 0281	9.420 8665	9.350 0461	34
35	9.550 6971	9.477 0878	9.403 8331	9.330 9298	35
36	9.537 8599	9.462 1474	9.386 7998	9.311 8135	36
37	9.525 0227	9.447 2071	9.369 7664	9.292 6973	37
38	9.512 1855	9.432 2667	9.352 7331	9.273 5810	38
39	9.499 3482	9.417 3264	9.335 6998	9.254 4647	39
40	9.486 5110	9.402 3860	9.318 6664	9.235 3484	40
41	9.473 6738	9.387 4457	9.301 6331	9.216 2321	41
42	9.460 8366	9.372 5053	9.284 5997	9.197 1158	42
43	9.447 9993	9.357 5650	9.267 5664	9.177 9995	43
44	9.435 1621	9.342 6246	9.250 5331	9.158 8832	44
45	9.422 3249	9.327 6843	9.233 4997	9.139 7669	45
46	9.409 4877	9.312 7439	9.216 4664	9.120 6506	46
47	9.396 6504	9.297 8036	9.199 4331	9.101 5344	47
48	9.383 8132	9.282 8632	9.182 3997	9.082 4181	48
49	9.370 9760	9.267 9229	9.165 3664	9.063 3018	49
50	9.358 1388	9.252 9825	9.148 3330	9.044 1855	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	3%	3½%	4%	4½%	n
51	0.2214 6318	0.1729 9843	0.1353 0059	0.1059 4225	51
52	0.2150 1280	0.1671 4824	0.1300 9672	0.1013 8014	52
53	0.2087 5029	0.1614 9589	0.1250 9300	0.0970 1449	53
54	0.2026 7019	0.1560 3467	0.1202 8173	0.0928 3683	54
55	0.1967 6717	0.1507 5814	0.1156 5551	0.0888 3907	55
56	0.1910 3609	0.1456 6004	0.1112 0722	0.0850 1347	56
57	0.1854 7193	0.1407 3433	0.1069 3002	0.0813 5260	57
58	0.1800 6984	0.1359 7520	0.1028 1733	0.0778 4938	58
59	0.1748 2508	0.1313 7701	0.0988 6282	0.0744 9701	59
60	0.1697 3309	0.1269 3431	0.0950 6040	0.0712 8901	60
61	0.1647 8941	0.1226 4184	0.0914 0423	0.0682 1915	61
62	0.1599 8972	0.1184 9453	0.0878 8868	0.0652 8148	62
63	0.1553 2982	0.1144 8747	0.0845 0835	0.0624 7032	63
64	0.1508 0565	0.1106 1591	0.0812 5803	0.0597 8021	64
65	0.1464 1325	0.1068 7528	0.0781 3272	0.0572 0594	65
66	0.1421 4879	0.1032 6114	0.0751 2762	0.0547 4253	66
67	0.1380 0853	0.0997 6922	0.0722 3809	0.0523 8519	67
68	0.1339 8887	0.0963 9538	0.0694 5970	0.0501 2937	68
69	0.1300 8628	0.0931 3563	0.0667 8818	0.0479 7069	69
70	0.1262 9736	0.0899 8612	0.0642 1940	0.0459 0497	70
71	0.1226 1880	0.0869 4311	0.0617 4942	0.0439 2820	71
72	0.1190 4737	0.0840 0300	0.0593 7445	0.0420 3655	72
73	0.1155 7998	0.0811 6232	0.0570 9081	0.0402 2637	73
74	0.1122 1357	0.0784 1770	0.0548 9501	0.0384 9413	74
75	0.1089 4521	0.0757 6590	0.0527 8367	0.0368 3649	75
76	0.1057 7205	0.0732 0376	0.0507 5353	0.0352 5023	76
77	0.1026 9131	0.0707 2827	0.0488 0147	0.0337 3228	77
78	0.0997 0030	0.0683 3650	0.0469 2449	0.0322 7969	78
79	0.0967 9641	0.0660 2560	0.0451 1970	0.0308 8965	79
80	0.0939 7710	0.0637 9285	0.0433 8433	0.0295 5948	80
81	0.0912 3990	0.0616 3561	0.0417 1570	0.0282 8658	81
82	0.0885 8243	0.0595 5131	0.0401 1125	0.0270 6850	82
83	0.0860 0236	0.0575 3750	0.0385 6851	0.0259 0287	83
84	0.0834 9743	0.0555 9178	0.0370 8510	0.0247 8744	84
85	0.0810 6547	0.0537 1187	0.0356 5875	0.0237 2003	85
86	0.0787 0434	0.0518 9553	0.0342 8726	0.0226 9860	86
87	0.0764 1198	0.0501 4060	0.0329 6852	0.0217 2115	87
88	0.0741 8639	0.0484 4503	0.0317 0050	0.0207 8579	88
89	0.0720 2562	0.0468 0679	0.0304 8125	0.0198 9070	89
90	0.0699 2779	0.0452 2395	0.0293 0890	0.0190 3417	90
91	0.0678 9105	0.0436 9464	0.0281 8163	0.0182 1451	91
92	0.0659 1364	0.0422 1704	0.0270 9772	0.0174 3016	92
93	0.0639 9383	0.0407 8941	0.0260 5550	0.0166 7958	93
94	0.0621 2993	0.0394 1006	0.0250 5337	0.0159 6132	94
95	0.0603 2032	0.0380 7735	0.0240 8978	0.0152 7399	95
96	0.0585 6342	0.0367 8971	0.0231 6325	0.0146 1626	96
97	0 0568 5769	0.0355 4562	0.0222 7235	0.0139 8685	97
98	0.0552 0164	0.0343 4359	0.0214 1572	0.0133 8454	98
99	0.0535 9383	0.0331 8221	0.0205 9204	0.0128 0817	99
100	0.0520 3284	0.0320 6011	0.0198 0004	0.0122 5663	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	3%	3½%	4%	4½%	n
51	9.345 3015	9.238 0422	9.131 2997	9.025 0692	51
52	9.332 4643	9.223 1018	9.114 2664	9.005 9529	52
53	9.319 6271	9.208 1615	9.097 2330	8.986 8366	53
54	9.306 7899	9.193 2211	9.080 1997	8.967 7203	54
55	9.293 9526	9.178 2808	9.063 1663	8.948 6040	55
56	9.281 1154	9.163 3404	9.046 1330	8.929 4877	56
57	9.268 2782	9.148 4001	9.029 0997	8.910 3714	57
58	9.255 4410	9.133 4597	9.012 0663	8.891 2552	58
59	9.242 6037	9.118 5194	8.995 0330	8.872 1389	59
60	9.229 7665	9.103 5790	8.977 9996	8.853 0226	60
61	9.216 9293	9.088 6387	8.960 9663	8.833 9063	61
62	9.204 0921	9.073 6983	8.943 9330	8.814 7900	62
63	9.191 2548	9.058 7580	8.926 8996	8.795 6737	63
64	9.178 4176	9.043 8176	8.909 8663	8.776 5574	64
65	9.165 5804	9.028 8773	8.892 8329	8.757 4411	65
66	9 152 7432	9.013 9369	8.875 7996	8.738 3248	66
67	9.139 9059	8.998 9966	8.858 7663	8.719 2085	67
68	9.127 0687	8.984 0562	8.841 7329	8.700 0923	68
69	9.114 2315	8.969 1159	8.824 6996	8.680 9760	69
70	9.101 3943	8.954 1755	8.807 6662	8.661 8597	70
71	9.088 5570	8.939 2352	8.790 6329	8.642 7434	71
72	9.075 7198	8.924 2948	8.773 5996	8.623 6271	72
73	9.062 8826	8.909 3545	8.756 5662	8.604 5108	73
74	9.050 0454	8.894 4141	8.739 5329	8.585 3945	74
75	9.037 2081	8.879 4738	8.722 4996	8.566 2782	75
76	9.024 3709	8.864 5334	8.705 4662	8.547 1619	76
77	9.011 5337	8.849 5931	8.688 4329	8.528 0456	77
78	8.998 6965	8.834 6527	8.671 3995	8.508 9293	78
79	8.985 8592	8.819 7124	8.654 3662	8.489 8131	79
80	8.973 0220	8.804 7720	8.637 3329	8.470 6968	80
81	8.960 1848	8.789 8317	8.620 2995	8.451 5805	81
82	8.947 3476	8.774 8913	8.603 2662	8.432 4642	82
83	8.934 5103	8.759 9510	8.586 2328	8.413 3479	83
84	8.921 6731	8.745 0106	8.569 1995	8.394 2316	84
85	8.908 8359	8.730 0703	8.552 1662	8.375 1153	85
86	8.895 9987	8.715 1299	8.535 1328	8.355 9990	86
87	8.883 1615	8.700 1896	8.518 0995	8.336 8827	87
88	8.870 3242	8.685 2492	8.501 0661	8.317 7664	88
89	8.857 4870	8.670 3089	8.484 0328	8.298 6502	89
90	8.844 6498	8.655 3685	8.466 9995	8.279 5339	90
91	8.831 8126	8.640 4282	8.449 9661	8.260 4176	91
92	8.818 9753	8.625 4878	8.432 9328	8.241 3013	92
93	8.806 1381	8.610 5475	8.415 8994	8.222 1850	93
94	8.793 3009	8.595 6071	8.398 8661	8.203 0687	94
95	8.780 4637	8.580 6668	8.381 8328	8.183 9524	95
96	8.767 6364	8.565 7264	8.364 7994	8.164 8361	96
97	8.754 7892	8.550 7861	8.347 7661	8.145 7198	97
98	8.741 9520	8.535 8457	8.330 7327	8.126 6035	98
99	8.729 1148	8.520 9054	8.313 6994	8.107 4873	99
100	8.716 2775	8.505 9650	8.296 6661	8.088 3710	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	5%	5½%	6%	6½%	n
1	0.9523 8095	0.9478 6730	0.9433 9623	0.9389 6714	1
2	0.9070 2948	0.8984 5242	0.8899 9644	0.8816 5928	2
3	0.8638 3760	0.8516 1366	0.8396 1928	0.8278 4909	3
4	0.8227 0247	0.8072 1674	0.7920 9366	0.7773 2309	4
5	0.7835 2617	0.7651 3435	0.7472 5817	0.7298 8084	5
6	0.7462 1540	0.7252 4583	0.7049 6054	0.6853 3412	6
7	0.7106 8133	0.6874 3681	0.6650 5711	0.6435 0621	7
8	0.6768 3936	0.6515 9887	0.6274 1237	0.6042 3119	8
9	0.6446 0892	0.6176 2926	0.5918 9846	0.5673 5323	9
10	0.6139 1325	0.5854 3058	0.5583 9478	0.5327 2604	10
11	0.5846 7929	0.5549 1050	0.5267 8753	0.5002 1224	11
12	0.5568 3742	0.5259 8152	0.4969 6936	0.4696 8285	12
13	0.5303 2135	0.4985 6068	0.4688 3902	0.4410 1676	13
14	0.5050 6795	0.4725 6937	0.4423 0096	0.4141 0025	14
15	0.4810 1710	0.4479 3305	0.4172 6506	0.3888 2652	15
16	0.4581 1152	0.4245 8109	0.3936 4628	0.3650 9533	16
17	0.4362 9669	0.4024 4653	0.3713 6442	0.3428 1251	17
18	0.4155 2065	0.3814 6590	0.3503 4379	0.3218 8969	18
19	0.3957 3396	0.3615 7906	0.3305 1301	0.3022 4384	19
20	0.3768 8948	0.3427 2896	0.3118 0473	0.2837 9703	20
21	0.3589 4236	0.3248 6158	0.2941 5540	0.2664 7608	21
22	0.3418 4987	0.3079 2567	0.2775 0510	0.2502 1228	22
23	0.3255 7131	0.2918 7267	0.2617 9726	0.2349 4111	23
24	0.3100 6791	0.2766 5656	0.2469 7855	0.2206 0198	24
25	0.2953 0277	0.2622 3370	0.2329 9863	0.2071 3801	25
26	0.2812 4073	0.2485 6275	0.2198 1003	0.1944 9579	26
27	0.2678 4832	0.2356 0450	0.2073 6795	0.1826 2515	27
28	0.2550 9364	0.2233 2181	0.1956 3014	0.1714 7902	28
29	0.2429 4632	0.2116 7944	0.1845 5674	0.1610 1316	29
30	0.2313 7745	0.2006 4402	0.1741 1013	0.1511 8607	30
31	0.2203 5947	0.1901 8390	0.1642 5484	0.1419 5875	31
32	0.2098 6617	0.1802 6910	0.1549 5740	0.1332 9460	32
33	0.1998 7254	0.1708 7119	0.1461 8622	0.1251 5925	33
34	0.1903 5480	0.1619 6321	0.1379 1153	0.1175 2042	34
35	0.1812 9029	0.1535 1963	0.1301 0522	0.1103 4781	35
36	0.1726 5741	0.1455 1624	0.1227 4077	0.1036 1297	36
37	0.1644 3563	0.1379 3008	0.1157 9318	0.0972 8917	37
38	0.1566 0536	0.1307 3941	0.1092 3885	0.0913 5134	38
39	0.1491 4797	0.1239 2362	0.1030 5552	0.0857 7590	39
40	0.1420 4568	0.1174 6314	0.0972 2219	0.0805 4075	40
41	0.1352 8160	0.1113 3947	0.0917 1905	0.0756 2512	41
42	0.1288 3962	0.1055 3504	0.0865 2740	0.0710 0950	42
43	0.1227 0440	0.1000 3322	0.0816 2962	0.0666 7559	43
44	0.1168 6133	0.0948 1822	0.0770 0908	0.0626 0619	44
45	0.1112 9651	0.0898 7509	0.0726 5007	0.0587 8515	45
46	0.1059 9668	0.0851 8965	0.0685 3781	0.0551 9733	46
47	0.1009 4921	0.0807 4849	0.0646 5831	0.0518 2848	47
48	0.0961 4211	0.0765 3885	0.0609 9840	0.0486 6524	48
49	0.0915 6391	0.0725 4867	0.0575 4566	0.0456 9506	49
50	0.0872 0373	0.0687 6652	0.0542 8836	0.0429 0616	50

Logarithm of Present Value of 1 at Compound Interest

$log\ v^n$

n	5%	5½%	6%	6½%	n
1	9.978 8107	9.976 7475	9.974 6941	9.972 6504	1
2	9.957 6214	9.953 4951	9.949 3883	9.945 3008	2
3	9.936 4321	9.930 2426	9.924 0824	9.917 9512	3
4	9.915 2428	9.906 9902	9.898 7765	9.890 6016	4
5	9.894 0535	9.883 7377	9.873 4707	9.863 2520	5
6	9.872 8642	9.860 4852	9.848 1648	9.835 9024	6
7	9.851 6749	9.837 2328	9.822 8589	9.808 5527	7
8	9.830 4856	9.813 9803	9.797 5531	9.781 2031	8
9	9.809 2963	9.790 7279	9.772 2472	9.753 8535	9
10	9.788 1070	9.767 4754	9.746 9413	9.726 5039	10
11	9.766 9177	9.744 2229	9.721 6355	9.699 1543	11
12	9.745 7284	9.720 9705	9.696 3296	9.671 8047	12
13	9.724 5391	9.697 7180	9.671 0238	9.644 4551	13
14	9.703 3498	9.674 4656	9.645 7179	9.617 1055	14
15	9.682 1605	9.651 2131	9.620 4120	9.589 7559	15
16	9.660 9712	9.627 9606	9.595 1062	9.562 4063	16
17	9.639 7819	9.604 7082	9.569 8003	9.535 0567	17
18	9.618 5926	9.581 4557	9.544 4944	9.507 7071	18
19	9.597 4033	9.558 2033	9.519 1886	9.480 3575	19
20	9.576 2140	9.534 9508	9.493 8827	9.453 0078	20
21	9.555 0247	9.511 6983	9.468 5768	9.425 6582	21
22	9.533 8354	9.488 4459	9.443 2710	9.398 3086	22
23	9.512 6461	9.465 1934	9.417 9651	9.370 9590	23
24	9.491 4568	9.441 9410	9.392 6592	9.343 6094	24
25	9.470 2675	9.418 6885	9.367 3534	9.316 2598	25
26	9.449 0782	9.395 4361	9.342 0475	9.288 9102	26
27	9.427 8889	9.372 1836	9.316 7416	9.261 5606	27
28	9.406 6996	9.348 9311	9.291 4358	9.234 2110	28
29	9.385 5103	9.325 6787	9.266 1299	9.206 8614	29
30	9.364 3210	9.302 4262	9.240 8240	9.179 5118	30
31	9.343 1317	9.279 1738	9.215 5182	9.152 1622	31
32	9.321 9424	9.255 9213	9.190 2123	9.124 8126	32
33	9.300 7531	9.232 6688	9.164 9064	9.097 4629	33
34	9.279 5638	9.209 4164	9.139 6006	9.070 1133	34
35	9.258 3745	9.186 1639	9.114 2947	9.042 7637	35
36	9.237 1852	9.162 9115	9.088 9888	9.015 4141	36
37	9.215 9959	9.139 6590	9.063 6830	8.988 0645	37
38	9.194 8066	9.116 4065	9.038 3771	8.960 7149	38
39	9.173 6173	9.093 1541	9.013 0713	8.933 3653	39
40	9.152 4280	9.069 9016	8.987 7654	8.906 0157	40
41	9.131 2387	9.046 6492	8.962 4595	8.878 6661	41
42	9.110 0494	9.023 3967	8.937 1537	8.851 3165	42
43	9.088 8601	9.000 1442	8.911 8478	8.823 9669	43
44	9.067 6708	8.976 8918	8.886 5419	8.796 6173	44
45	9.046 4815	8.953 6393	8.861 2361	8.769 2676	45
46	9.025 2922	8.930 3869	8.835 9302	8.741 9180	46
47	9.004 1029	8.907 1344	8.810 6243	8.714 5684	47
48	8.982 9136	8.883 8819	8.785 3185	8.687 2188	48
49	8.961 7243	8.860 6295	8.760 0126	8.659 8692	49
50	8.940 5350	8.837 3770	8.734 7067	8.632 5196	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	5%	5½%	6%	6½%	n
51	0.0830 5117	0.0651 8153	0.0512 1544	0.0402 8747	51
52	0.0790 9635	0.0617 8344	0.0483 1645	0.0378 2861	52
53	0.0753 2986	0.0585 6250	0.0455 8156	0.0355 1982	53
54	0.0717 4272	0.0555 0948	0.0430 0147	0.0333 5195	54
55	0.0683 2640	0.0526 1562	0.0405 6742	0.0313 1638	55
56	0.0650 7276	0.0498 7263	0.0382 7115	0.0294 0505	56
57	0.0619 7406	0.0472 7263	0.0361 0486	0.0276 1038	57
58	0.0590 2291	0.0448 0818	0.0340 6119	0.0259 2524	58
59	0.0562 1230	0.0424 7221	0.0321 3320	0.0243 4295	59
60	0.0535 3552	0.0402 5802	0.0303 1434	0.0228 5723	60
61	0.0509 8621	0.0381 5926	0.0285 9843	0.0214 6218	61
62	0.0485 5830	0.0361 6992	0.0269 7965	0.0201 5229	62
63	0.0462 4600	0.0342 8428	0.0254 5250	0.0189 2233	63
64	0.0440 4381	0.0324 9695	0.0240 1179	0.0177 6745	64
65	0.0419 4648	0.0308 0279	0.0226 5264	0.0166 8305	65
66	0.0399 4903	0.0291 9696	0.0213 7041	0.0156 6484	66
67	0.0380 4670	0.0276 7485	0.0201 6077	0.0147 0877	67
68	0.0362 3495	0.0262 3208	0.0190 1959	0.0138 1105	68
69	0.0345 0948	0.0248 6453	0.0179 4301	0.0129 6812	69
70	0.0328 6617	0.0235 6828	0.0169 2737	0.0121 7664	70
71	0.0313 0111	0.0223 3960	0.0159 6921	0.0114 3346	71
72	0.0298 1058	0.0211 7498	0.0150 6530	0.0107 3565	72
73	0.0283 9103	0.0200 7107	0.0142 1254	0.0100 8042	73
74	0.0270 3908	0.0190 2471	0.0134 0806	0.0094 6518	74
75	0.0257 5150	0.0180 3290	0.0126 4911	0.0088 8750	75
76	0.0245 2524	0.0170 9279	0.0119 3313	0.0083 4507	76
77	0.0233 5737	0.0162 0170	0.0112 5767	0.0078 3574	77
78	0.0222 4512	0.0153 5706	0.0106 2044	0.0073 5751	78
79	0.0211 8582	0.0145 5646	0.0100 1928	0.0069 0846	79
80	0.0201 7698	0.0137 9759	0.0094 5215	0.0064 8681	80
81	0.0192 1617	0.0130 7828	0.0089 1713	0.0060 9090	81
82	0.0183 0111	0.0123 9648	0.0084 1238	0.0057 1916	82
83	0.0174 2963	0.0117 5022	0.0079 3621	0.0053 7010	83
84	0.0165 9965	0.0111 3765	0.0074 8699	0.0050 4235	84
85	0.0158 0919	0.0105 5701	0.0070 6320	0.0047 3460	85
86	0.0150 5637	0.0100 0664	0.0066 6340	0.0044 4563	86
87	0.0143 3940	0.0094 8497	0.0062 8622	0.0041 7430	87
88	0.0136 5657	0.0089 9049	0.0059 3040	0.0039 1953	88
89	0.0130 0626	0.0085 2180	0.0055 9472	0.0036 8031	89
90	0.0123 8691	0.0080 7753	0.0052 7803	0.0034 5569	90
91	0.0117 9706	0.0076 5643	0.0049 7928	0.0032 4478	91
92	0.0112 3530	0.0072 5728	0.0046 9743	0.0030 4674	92
93	0.0107 0028	0.0068 7894	0.0044 3154	0.0028 6079	93
94	0.0101 9074	0.0065 2032	0.0041 8070	0.0026 8619	94
95	0.0097 0547	0.0061 8040	0.0039 4405	0.0025 2224	95
96	0.0092 4331	0.0058 5820	0.0037 2081	0.0023 6831	96
97	0.0088 0315	0.0055 5279	0.0035 1019	0.0022 2376	97
98	0.0083 8395	0.0052 6331	0.0033 1150	0.0020 8804	98
99	0.0079 8471	0.0049 8892	0.0031 2406	0.0019 6060	99
100	0.0076 0449	0.0047 2883	0.0029 4723	0.0018 4094	100

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	5%	5½%	6%	6½%	n
51	8.919 3457	8.814 1246	8.709 4009	8.605 1700	51
52	8.898 1564	8.790 8721	8.684 0950	8.577 8204	52
53	8.876 9671	8.767 6196	8.658 7891	8.550 4708	53
54	8.855 7778	8.744 3672	8.633 4833	8.523 1212	54
55	8.834 5885	8.721 1147	8.608 1774	8.495 7716	55
56	8.813 3993	8.697 8623	8.582 8715	8.468 4220	56
57	8.792 2100	8.674 6098	8.557 5657	8.441 0724	57
58	8.771 0207	8.651 3573	8.532 2598	8.413 7227	58
59	8.749 8314	8.628 1049	8.506 9539	8.386 3731	59
60	8.728 6421	8.604 8524	8.481 6481	8.359 0235	60
61	8.707 4528	8.581 6000	8.456 3422	8.331 6739	61
62	8.686 2635	8.558 3475	8.431 0364	8.304 3243	62
63	8.665 0742	8.535 0950	8.405 7305	8.276 9747	63
64	8.643 8849	8.511 8426	8.380 4246	8.249 6251	64
65	8.622 6956	8.488 5901	8.355 1188	8.222 2755	65
66	8.601 5063	8.465 3377	8.329 8129	8.194 9259	66
67	8.580 3170	8.442 0852	8.304 5070	8.167 5763	67
68	8.559 1277	8.418 8327	8.279 2012	8.140 2267	68
69	8.537 9384	8.395 5803	8.253 8953	8.112 8771	69
70	8.516 7491	8.372 3278	8.228 5894	8.085 5275	70
71	8.495 5598	8.349 0754	8.203 2836	8.058 1778	71
72	8.474 3705	8.325 8229	8.177 9777	8.030 8282	72
73	8.453 1812	8.302 5704	8.152 6718	8.003 4786	73
74	8.431 9919	8.279 3180	8.127 3660	7.976 1290	74
75	8.410 8026	8.256 0655	8.102 0601	7.948 7794	75
76	8.389 6133	8.232 8131	8.076 7542	7.921 4298	76
77	8.368 4240	8.209 5606	8.051 4484	7.894 0802	77
78	8.347 2347	8.186 3082	8.026 1425	7.866 7306	78
79	8.326 0454	8.163 0557	8.000 8366	7.839 3810	79
80	8.304 8561	8.139 8032	7.975 5308	7.812 0314	80
81	8.283 6668	8.116 5508	7.950 2249	7.784 6818	81
82	8.262 4775	8.093 2983	7.924 9190	7.757 3322	82
83	8.241 2882	8.070 0459	7.899 6132	7.729 9826	83
84	8.220 0989	8.046 7934	7.874 3073	7.702 6329	84
85	8.198 9096	8.023 5409	7.849 0014	7.675 2833	85
86	8.177 7203	8.000 2885	7.823 6956	7.647 9337	86
87	8.156 5310	7.977 0360	7.798 3897	7.620 5841	87
88	8.135 3417	7.953 7836	7.773 0839	7.593 2345	88
89	8.114 1524	7.930 5311	7.747 7780	7.565 8849	89
90	8.092 9631	7.907 2786	7.722 4721	7.538 5353	90
91	8.071 7738	7.884 0262	7.697 1663	7.511 1857	91
92	8.050 5845	7.860 7737	7.671 8604	7.483 8361	92
93	8.029 3952	7.837 5213	7.646 5545	7.456 4865	93
94	8.008 2059	7.814 2688	7.621 2487	7.429 1369	94
95	7.987 0166	7.791 0163	7.595 9428	7 401 7873	95
96	7.965 8273	7.767 7639	7.570 6369	7 374 4377	96
97	7.944 6380	7.744 5114	7.545 3311	7 347 0880	97
98	7.923 4487	7.721 2590	7.520 0252	7 319 7384	98
99	7.902 2594	7.698 0065	7.494 7193	7.292 3888	99
100	7.881 0701	7.674 7540	7.469 4135	7.265 0392	100

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	7%	7½%	8%	8½%	n
1	0.9345 7944	0.9302 3256	0.9259 2593	0.9216 5899	1
2	0.8734 3873	0.8653 3261	0.8573 3882	0.8494 5529	2
3	0.8162 9788	0.8049 6057	0.7938 3224	0.7829 0810	3
4	0.7628 9521	0.7488 0053	0.7350 2985	0.7215 7428	4
5	0.7129 8618	0.6965 5863	0.6805 8320	0.6650 4542	5
6	0.6663 4222	0.6479 6152	0.6301 6963	0.6129 4509	6
7	0.6227 4974	0.6027 5490	0.5834 9040	0.5649 2635	7
8	0.5820 0910	0.5607 0223	0.5402 6888	0.5206 6945	8
9	0.5439 3374	0.5215 8347	0.5002 4897	0.4798 7968	9
10	0.5083 4929	0.4851 9393	0.4631 9349	0.4422 8542	10
11	0.4750 9280	0.4513 4319	0.4288 8286	0.4076 3633	11
12	0.4440 1196	0.4198 5413	0.3971 1376	0.3757 0168	12
13	0.4149 6445	0.3905 6198	0.3676 9792	0.3462 6883	13
14	0.3878 1724	0.3633 1347	0.3404 6104	0.3191 4178	14
15	0.3624 4602	0.3379 6602	0.3152 4170	0.2941 3989	15
16	0.3387 3460	0.3143 8699	0.2918 9047	0.2710 9667	16
17	0.3165 7439	0.2924 5302	0.2702 6895	0.2498 5869	17
18	0.2958 6392	0.2720 4932	0.2502 4903	0.2302 8450	18
19	0.2765 0832	0.2530 6913	0.2317 1206	0.2122 4378	19
20	0.2584 1900	0.2354 1315	0.2145 4821	0.1956 1639	20
21	0.2415 1309	0.2189 8897	0.1986 5575	0.1802 9160	21
22	0.2257 1317	0.2037 1067	0.1839 4051	0.1661 6738	22
23	0.2109 4688	0.1894 9830	0.1703 1528	0.1531 4965	23
24	0.1971 4662	0.1762 7749	0.1576 9934	0.1411 5176	24
25	0.1842 4918	0.1639 7906	0.1460 1790	0.1300 9378	25
26	0.1721 9549	0.1525 3866	0.1352 0176	0.1199 0210	26
27	0.1609 3037	0.1418 9643	0.1251 8682	0.1105 0885	27
28	0.1504 0221	0.1319 9668	0.1159 1372	0.1018 5148	28
29	0.1405 6282	0.1227 8761	0.1073 2752	0.0938 7233	29
30	0.1313 6712	0.1142 2103	0.0993 7733	0.0865 1828	30
31	0.1227 7301	0.1062 5212	0.0920 1605	0.0797 4035	31
32	0.1147 4113	0.0988 3918	0.0852 0005	0.0734 9341	32
33	0.1072 3470	0.0919 4343	0.0788 8893	0.0677 3586	33
34	0.1002 1934	0.0855 2877	0.0730 4531	0.0624 2936	34
35	0.0936 6294	0.0795 6164	0.0676 3454	0.0575 3858	35
36	0.0875 3546	0.0740 1083	0.0626 2458	0.0530 3095	36
37	0.0818 0884	0.0688 4729	0.0579 8572	0.0488 7645	37
38	0.0764 5686	0.0640 4399	0.0536 9048	0.0450 4742	38
39	0.0714 5501	0.0595 7580	0.0497 1341	0.0415 1836	39
40	0.0667 8038	0.0554 1935	0.0460 3093	0.0382 6577	40
41	0.0624 1157	0.0515 5288	0.0426 2123	0.0352 6799	41
42	0.0583 2857	0.0479 5617	0.0394 6411	0.0325 0506	42
43	0.0545 1268	0.0446 1039	0.0365 4084	0.0299 5858	43
44	0.0509 4643	0.0414 9804	0.0338 3411	0.0276 1160	44
45	0.0476 1349	0.0386 0283	0.0313 2788	0.0254 4848	45
46	0.0444 9859	0.0359 0961	0.0290 0730	0.0234 5482	46
47	0.0415 8747	0.0334 0428	0.0268 5861	0.0216 1734	47
48	0.0388 6679	0.0310 7375	0.0248 6908	0.0199 2382	48
49	0.0363 2410	0.0289 0582	0.0230 2693	0.0183 6297	49
50	0.0339 4776	0.0268 8913	0.0213 2123	0.0169 2439	50

Logarithm of Present Value of 1 at Compound Interest

$\log v^n$

n	7%	7½%	8%	8½%	n
1	9.970 6162	9.968 5915	9.966 5762	9.964 5703	1
2	9.941 2324	9.937 1831	9.933 1525	9.929 1405	2
3	9.911 8487	9.905 7746	9.899 7287	9.893 7108	3
4	9.882 4649	9.874 3661	9.866 3050	9.858 2810	4
5	9.853 0811	9.842 9577	9.832 8812	9.822 8513	5
6	9.823 6973	9.811 5492	9.799 4575	9.787 4216	6
7	9.794 3136	9.780 1407	9.766 0337	9.751 9918	7
8	9.764 9298	9.748 7323	9.732 6100	9.716 5621	8
9	9.735 5460	9.717 3238	9.699 1862	9.681 1324	9
10	9.706 1622	9.685 9154	9.665 7624	9.645 7026	10
11	9.676 7784	9.654 5069	9.632 3387	9.610 2729	11
12	9.647 3947	9.623 0984	9.598 9149	9.574 8431	12
13	9.618 0109	9.591 6900	9.565 4912	9.539 4134	13
14	9.588 6271	9.560 2815	9.532 0674	9.503 9837	14
15	9.559 2433	9.528 8730	9.498 6437	9.468 5539	15
16	9.529 8596	9.497 4646	9.465 2199	9.433 1242	16
17	9.500 4758	9.466 0561	9.431 7962	9.397 6945	17
18	9.471 0920	9.434 6476	9.398 3724	9.362 2647	18
19	9.441 7082	9.403 2392	9.364 9486	9.326 8350	19
20	9.412 3244	9.371 8307	9.331 5249	9.291 4052	20
21	9.382 9407	9.340 4222	9.298 1011	9.255 9755	21
22	9.353 5569	9.309 0138	9.264 6774	9.220 5458	22
23	9.324 1731	9.277 6053	9.231 2536	9.185 1160	23
24	9.294 7893	9.246 1969	9.197 8299	9.149 6863	24
25	9.265 4056	9.214 7884	9.164 4061	9.114 2565	25
26	9.236 0218	9.183 3799	9.130 9824	9.078 8268	26
27	9.206 6380	9.151 9715	9.097 5586	9.043 3971	27
28	9.177 2542	9.120 5630	9.064 1348	9.007 9673	28
29	9.147 8704	9.089 1545	9.030 7111	8.972 5376	29
30	9.118 4867	9.057 7461	8.997 2873	8.937 1079	30
31	9.089 1029	9.026 3376	8.963 8636	8.901 6781	31
32	9.059 7191	8.994 9291	8.930 4398	8.866 2484	32
33	9.030 3353	8.963 5207	8.897 0161	8.830 8186	33
34	9.000 9516	8.932 1122	8.863 5923	8.795 3889	34
35	8.971 5678	8.900 7037	8.830 1686	8.759 9592	35
36	8.942 1840	8.869 2953	8.796 7448	8.724 5294	36
37	8.912 8002	8.837 8868	8.763 3210	8.689 0997	37
38	8.883 4164	8.806 4784	8.729 8973	8.653 6699	38
39	8.854 0327	8.775 0699	8.696 4735	8.618 2402	39
40	8.824 6489	8.743 6614	8.663 0498	8.582 8105	40
41	8.795 2651	8.712 2530	8.629 6260	8.547 3807	41
42	8.765 8813	8.680 8445	8.596 2023	8.511 9510	42
43	8.736 4976	8.649 4360	8.562 7785	8.476 5213	43
44	8.707 1138	8.618 0276	8.529 3548	8.441 0915	44
45	8.677 7300	8.586 6191	8.495 9310	8.405 6618	45
46	8.648 3462	8.555 2106	8.462 5072	8.370 2320	46
47	8.618 9624	8.523 8022	8.429 0835	8.334 8023	47
48	8.589 5787	8.492 3937	8.395 6597	8.299 3726	48
49	8.560 1949	8.460 9852	8.362 2360	8.263 9428	49
50	8.530 8111	8.429 5768	8.328 8122	8.228 5131	50

Present Value of 1 at Compound Interest

$$v^n = (1+i)^{-n}$$

n	7%	7½%	8%	8½%	n
51	0.0317 2688	0.0250 1315	0.0197 4188	0.0155 9852	51
52	0.0296 5129	0.0232 6804	0.0182 7952	0.0143 7651	52
53	0.0277 1148	0.0216 4469	0.0169 2548	0.0132 5024	53
54	0.0258 9858	0.0201 3460	0.0156 7174	0.0122 1221	54
55	0.0242 0428	0.0187 2986	0.0145 1087	0.0112 5549	55
56	0.0226 2083	0.0174 2312	0.0134 3599	0.0103 7372	56
57	0.0211 4096	0.0162 0756	0.0124 4073	0.0095 6104	57
58	0.0197 5791	0.0150 7680	0.0115 1920	0.0088 1201	58
59	0.0184 6533	0.0140 2493	0.0106 6592	0.0081 2167	59
60	0.0172 5732	0.0130 4644	0.0098 7585	0.0074 8541	60
61	0.0161 2834	0.0121 3623	0.0091 4431	0.0068 9900	61
62	0.0150 7321	0.0112 8951	0.0084 6695	0.0063 5852	62
63	0.0140 8711	0.0105 0187	0.0078 3977	0.0058 6039	63
64	0.0131 6553	0.0097 6918	0.0072 5905	0.0054 0128	64
65	0.0123 0423	0.0090 8761	0.0067 2134	0.0049 7814	65
66	0.0114 9928	0.0084 5359	0.0062 2346	0.0045 8815	66
67	0.0107 4699	0.0078 6381	0.0057 6247	0.0042 2871	67
68	0.0100 4392	0.0073 1517	0.0053 3562	0.0038 9743	68
69	0.0093 8684	0.0068 0481	0.0049 4039	0.0035 9210	69
70	0.0087 7275	0.0063 3006	0.0045 7443	0.0033 1069	70
71	0.0081 9883	0.0058 8842	0.0042 3558	0.0030 5133	71
72	0.0076 6246	0.0054 7760	0.0039 2184	0.0028 1228	72
73	0.0071 6117	0.0050 9544	0.0036 3133	0.0025 9196	73
74	0.0066 9269	0.0047 3995	0.0033 6234	0.0023 8891	74
75	0.0062 5485	0.0044 0925	0.0031 1328	0.0022 0176	75
76	0.0058 4565	0.0041 0163	0.0028 8267	0.0020 2927	76
77	0.0054 6323	0.0038 1547	0.0026 6914	0.0018 7030	77
78	0.0051 0582	0.0035 4928	0.0024 7142	0.0017 2377	78
79	0.0047 7179	0.0033 0165	0.0022 8835	0.0015 8873	79
80	0.0044 5962	0.0030 7130	0.0021 1885	0.0014 6427	80
81	0.0041 6787	0.0028 5703	0.0019 6190	0.0013 4956	81
82	0.0038 9520	0.0026 5770	0.0018 1657	0.0012 4383	82
83	0.0036 4038	0.0024 7228	0.0016 8201	0.0011 4639	83
84	0.0034 0222	0.0022 9979	0.0015 5742	0.0010 5658	84
85	0.0031 7965	0.0021 3934	0.0014 4205	0.0009 7381	85
86	0.0029 7163	0.0019 9009	0.0013 3523	0.0008 9752	86
87	0.0027 7723	0.0018 5124	0.0012 3633	0.0008 2720	87
88	0.0025 9554	0.0017 2209	0.0011 4475	0.0007 6240	88
89	0.0024 2574	0.0016 0194	0.0010 5995	0.0007 0267	89
90	0.0022 6704	0.0014 9018	0.0009 8144	0.0006 4762	90
91	0.0021 1873	0.0013 8621	0.0009 0874	0.0005 9689	91
92	0.0019 8012	0.0012 8950	0.0008 4142	0.0005 5013	92
93	0.0018 5058	0.0011 9953	0.0007 7910	0.0005 0703	93
94	0.0017 2952	0.0011 1585	0.0007 2138	0.0004 6731	94
95	0.0016 1637	0.0010 3800	0.0006 6795	0.0004 3070	95
96	0.0015 1063	0.0009 6558	0.0006 1847	0.0003 9696	96
97	0.0014 1180	0.0008 9821	0.0005 7266	0.0003 6586	97
98	0.0013 1944	0.0008 3555	0.0005 3024	0.0003 3720	98
99	0.0012 3312	0.0007 7725	0.0004 9096	0.0003 1078	99
100	0.0011 5245	0.0007 2303	0.0004 5459	0.0002 8644	100

Logarithm of Present Value of 1 at Compound Interest

$log\ v^n$

n	7%	7½%	8%	8½%	n
51	8.501 4273	8.398 1683	8.295 3885	8.193 0834	51
52	8.472 0436	8.366 7599	8.261 9647	8.157 6536	52
53	8.442 6598	8.335 3514	8.228 5410	8.122 2239	53
54	8.413 2760	8.303 9429	8.195 1172	8.086 7941	54
55	8.383 8922	8.272 5345	8.161 6934	8.051 3644	55
56	8.354 5084	8.241 1260	8.128 2697	8.015 9347	56
57	8.325 1247	8.209 7175	8.094 8459	7.980 5049	57
58	8.295 7409	8.178 3091	8.061 4222	7.945 0752	58
59	8.266 3571	8.146 9006	8.027 9984	7.909 6454	59
60	8.236 9733	8.115 4921	7.994 5747	7.874 2157	60
61	8.207 5896	8.084 0837	7.961 1509	7.838 7860	61
62	8.178 2058	8.052 6752	7.927 7272	7.803 3562	62
63	8.148 8220	8.021 2666	7.894 3034	7.767 9265	63
64	8.119 4382	7.989 8583	7.860 8796	7.732 4968	64
65	8.090 0544	7.958 4498	7.827 4559	7.697 0670	65
66	8.060 6707	7.927 0414	7.794 0321	7.661 6373	66
67	8.031 2869	7.895 6329	7.760 6084	7.626 2075	67
68	8.001 9031	7.864 2244	7.727 1846	7.590 7778	68
69	7.972 5193	7.832 8160	7.693 7609	7.555 3481	69
70	7.943 1356	7.801 4075	7.660 3371	7.519 9183	70
71	7.913 7518	7.769 9990	7.626 9134	7.484 4886	71
72	7.884 3680	7.738 5906	7.593 4896	7.449 0588	72
73	7.854 9842	7.707 1821	7.560 0658	7.413 6291	73
74	7.825 6005	7.675 7736	7.526 6421	7.378 1994	74
75	7.796 2167	7.644 3652	7.493 2183	7.342 7696	75
76	7.766 8329	7.612 9567	7.459 7946	7.307 3399	76
77	7.737 4491	7.581 5481	7.426 3708	7.271 9102	77
78	7.708 0653	7.550 1398	7.392 9471	7.236 4804	78
79	7.678 6816	7.518 7313	7.359 5233	7.201 0507	79
80	7.649 2978	7.487 3229	7.326 0996	7.165 6209	80
81	7.619 9140	7.455 9144	7.292 6758	7.130 1912	81
82	7.590 5302	7.424 5059	7.259 2520	7.094 7615	82
83	7.561 1465	7.393 0975	7.225 8283	7.059 3317	83
84	7.531 7627	7.361 6890	7.192 4045	7.023 9020	84
85	7.502 3789	7.330 2805	7.158 9808	6.988 4723	85
86	7.472 9951	7.298 8721	7.125 5570	6.953 0425	86
87	7.443 6113	7.267 4636	7.092 1333	6.917 6128	87
88	7.414 2276	7.236 0551	7.058 7095	6.882 1830	88
89	7.384 8438	7.204 6467	7.025 2858	6.846 7533	89
90	7.355 4600	7.173 2382	6.991 8620	6.811 3236	90
91	7.326 0762	7.141 8290	6.958 4382	6.775 8938	91
92	7.296 6925	7.110 4213	6.925 0145	6.740 4641	92
93	7.267 3087	7.079 0128	6.891 5907	6.705 0343	93
94	7.237 9249	7.047 6044	6.858 1670	6.669 6046	94
95	7.208 5411	7.016 1959	6.824 7432	6.634 1749	95
96	7.179 1573	6.984 7874	6.791 3195	6.598 7451	96
97	7.149 7736	6.953 3790	6.757 8957	6.563 3154	97
98	7.120 3898	6.921 9705	6.724 4720	6.527 8857	98
99	7.091 0060	6.890 5620	6.691 0482	6.492 4559	99
100	7.061 6222	6.859 1536	6.657 6245	6.457 0262	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0025 0000	2.0029 1667	2.0033 3333	2.0041 6667	2
3	3.0075 0625	3.0087 5851	3.0100 1111	3.0125 1736	3
4	4.0150 2502	4.0175 3405	4.0200 4448	4.0250 6952	4
5	5.0250 6258	5.0292 5186	5.0334 4463	5.0418 4064	5
6	6.0376 2523	6.0439 2051	6.0502 2278	6.0628 4831	6
7	7.0527 1930	7.0615 4861	7.0703 9019	7.0881 1018	7
8	8.0703 5110	8.0821 4480	8.0939 5816	8.1176 4397	8
9	9.0905 2697	9.1057 1772	9.1209 3802	9.1514 6749	9
10	10.1132 5329	10.1322 7606	10.1513 4114	10.1895 9860	10
11	11.1385 3642	11.1618 2853	11.1851 7895	11.2320 5526	11
12	12.1663 8277	12.1943 8387	12.2224 6288	12.2788 5549	12
13	13.1967 9872	13.2299 5082	13.2632 0442	13.3300 1739	13
14	14.2297 9072	14.2685 3818	14.3074 1510	14.3855 5913	14
15	15.2653 6520	15.3101 5475	15.3551 0648	15.4454 9896	15
16	16.3035 2861	16.3548 0936	16.4062 9017	16.5098 5520	16
17	17.3442 8743	17.4025 1089	17.4609 7781	17.5786 4627	17
18	18.3876 4815	18.4532 6822	18.5191 8107	18.6518 9063	18
19	19.4336 1727	19.5070 9025	19.5809 1167	19.7296 0684	19
20	20.4822 0131	20.5639 8593	20.6461 8137	20.8118 1353	20
21	21.5334 0682	21.6239 6422	21.7150 0198	21.8985 2942	21
22	22.5872 4033	22.6870 3412	22.7873 8532	22.9897 7330	22
23	23.6437 0843	23.7532 0463	23.8633 4327	24.0855 6402	23
24	24.7028 1770	24.8224 8481	24.9428 8775	25.1859 2054	24
25	25.7645 7475	25.8948 8373	26.0260 3071	26.2908 6187	25
26	26.8289 8619	26.9704 1047	27.1127 8414	27.4004 0713	26
27	27.8960 5865	28.0490 7417	28.2031 6009	28.5145 7549	27
28	28.9657 9880	29.1308 8397	29.2971 7062	29.6333 8622	28
29	30.0382 1330	30.2158 4904	30.3948 2786	30.7568 5867	29
30	31.1133 0883	31.3039 7860	31.4961 4395	31.8850 1224	30
31	32.1910 9210	32.3952 8188	32.6011 3110	33.0178 6646	31
32	33.2715 6983	33.4897 6811	33.7098 0154	34.1554 4090	32
33	34.3547 4876	34.5874 4660	34.8221 6754	35.2977 5524	33
34	35.4406 3563	35.6883 2666	35.9382 4143	36.4448 2922	34
35	36.5292 3722	36.7924 1761	37.0580 3557	37.5966 8268	35
36	37.6205 6031	37.8997 2883	38.1815 6236	38.7533 3552	36
37	38.7146 1171	39.0102 6970	39.3088 3423	39.9148 0775	37
38	39.8113 9824	40.1240 4966	40.4398 6368	41.0811 1945	38
39	40.9109 2673	41.2410 7813	41.5746 6322	42.2522 9078	39
40	42.0132 0405	42.3613 6461	42.7132 4543	43.4283 4199	40
41	43.1182 3706	43.4849 1859	43.8556 2292	44.6092 9342	41
42	44.2260 3265	44.6117 4961	45.0018 0833	45.7951 6548	42
43	45.3365 9774	45.7418 6721	46.1518 1436	46.9859 7866	43
44	46.4499 3923	46.8752 8099	47.3056 5374	48.1817 5358	44
45	47.5660 6408	48.0120 0056	48.4633 3925	49.3825 1088	45
46	48.6849 7924	49.1520 3556	49.6248 8371	50.5882 7134	46
47	49.8066 9169	50.2953 9566	50.7902 9999	51.7990 5581	47
48	50.9312 0842	51.4420 9057	51.9596 0099	53.0148 8521	48
49	52.0585 3644	52.5921 3000	53.1327 9966	54.2357 8056	49
50	53.1886 8278	53.7455 2371	54.3099 0899	55.4617 6298	50

Logarithm of Amount of 1 per Annum at Compound Interest

$log\ s_{\overline{n}|}$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.301 5725	0.301 6629	0.301 7532	0.301 9339	2
3	0.478 2065	0.478 3873	0.478 5681	0.478 9296	3
4	0.603 6882	0.603 9596	0.604 2309	0.604 7734	4
5	0.701 1415	0.701 5034	0.701 8653	0.702 5891	5
6	0.780 8661	0.781 3188	0.781 7713	0.782 6767	6
7	0.848 3566	0.848 9000	0.849 4434	0.850 5304	7
8	0.906 8925	0.907 5266	0.908 1609	0.909 4300	8
9	0.958 5891	0.959 3141	0.960 0395	0.961 4907	9
10	1.004 8909	1.005 7070	1.006 5234	1.008 1571	10
11	1.046 8281	1.047 7353	1,048 6429	1.050 4592	11
12	1.085 1615	1.086 1599	1.087 1587	1.089 1579	12
13	1.120 4686	1.121 5582	1.122 6485	1.124 8307	13
14	1.153 1985	1.154 3795	1.155 5612	1.157 9268	14
15	1.183 7072	1.184 9796	1.186 2528	1.188 8019	15
16	1.212 2816	1.213 6454	1.215 0104	1.217 7433	16
17	1.239 1565	1.240 6119	1.242 0686	1.245 9855	17
18	1.264 5262	1.266 0733	1.267 6218	1.270 7229	18
19	1.288 5537	1.290 1925	1.291 8329	1.295 1185	19
20	1.311 3767	1.313 1073	1.314 8397	1.318 3099	20
21	1.333 1127	1.334 9353	1.336 7598	1.340 4150	21
22	1.353 8632	1.355 7777	1.357 6945	1.361 5347	22
23	1.373 7156	1.375 7223	1.377 7312	1.381 7569	23
24	1.392 7465	1.394 8453	1.396 9468	1.401 1578	24
25	1.411 0230	1.413 2140	1.415 4079	1.419 8048	25
26	1.428 6043	1.430 8875	1.433 1741	1.437 7570	26
27	1.445 5428	1.447 9186	1.450 2978	1.455 0669	27
28	1.461 8855	1.464 3537	1.466 8257	1.471 7813	28
29	1.477 6741	1.480 2348	1.482 7997	1.487 9420	29
30	1.492 9462	1.495 5995	1.498 2574	1.503 5866	30
31	1.507 7357	1.510 4818	1.513 2326	1.518 7490	31
32	1.522 0733	1.524 9121	1.527 7562	1.533 4600	32
33	1.535 9868	1.538 9185	1.541 8558	1.547 7471	33
34	1.549 5015	1.552 5262	1.555 5568	1.561 6359	34
35	1.562 6406	1.565 7583	1.568 8824	1.575 1495	35
36	1.575 4252	1.578 6361	1.581 8537	1.588 3091	36
37	1.587 8749	1.591 1790	1.594 4902	1.601 1340	37
38	1.600 0074	1.603 4047	1.606 8096	1.613 6423	38
39	1.611 8393	1.615 3300	1.618 8288	1.625 8503	39
40	1.623 3858	1.626 9700	1.630 5626	1.637 7732	40
41	1.634 6610	1.638 3387	1.642 0253	1.649 4253	41
42	1.645 6780	1.649 4493	1.653 2300	1.660 8196	42
43	1.656 4489	1.660 3138	1.664 1888	1.671 9683	43
44	1.666 9851	1.670 9439	1.674 9130	1.682 8826	44
45	1.677 2972	1.681 3498	1.685 4134	1.693 5732	45
46	1.687 3950	1.691 5415	1.695 6995	1.704 0498	46
47	1.697 2877	1.701 5282	1.705 7808	1.714 3219	47
48	1.706 9840	1.711 3186	1.715 6658	1.724 3979	48
49	1.716 4919	1.720 9208	1.725 3627	1.734 2859	49
50	1.725 8192	1.730 3423	1.734 8791	1.743 9937	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	54.3216 5449	54.9022 8149	55.4909 4202	56.6928 5366	51
52	55.4574 5862	56.0624 1314	56.6759 1183	57.9290 7388	52
53	56.5961 0227	57.2259 2851	57.8648 3154	59.1704 4503	53
54	57.7375 9252	58.3928 3747	59.0577 1431	60.4169 8855	54
55	58.8819 3650	59.5631 4991	60.2545 7336	61.6687 2600	55
56	60.0291 4135	60.7368 7577	61.4554 2194	62.9256 7902	56
57	61.1792 1420	61.9140 2499	62.6602 7334	64.1878 6935	57
58	62.3321 6223	63.0946 0756	63.8691 4092	65.4553 1881	58
59	63.4879 9264	64.2786 3350	65.0820 3806	66.7280 4930	59
60	64.6467 1262	65.4661 1285	66.2989 7818	68.0060 8284	60
61	65.8083 2940	66.6570 5568	67.5199 7478	69.2894 4152	61
62	66.9728 5023	67.8514 7209	68.7450 4136	70.5781 4753	62
63	68.1402 8235	69.0493 7222	69.9741 9150	71.8722 2314	63
64	69.3106 3306	70.2507 6622	71.2074 3880	73.1716 9074	64
65	70.4839 0964	71.4556 6429	72.4447 9693	74.4765 7278	65
66	71.6601 1942	72.6640 7664	73.6862 7959	75.7868 9184	66
67	72.8392 6971	73.8760 1353	74.9319 0052	77.1026 7055	67
68	74.0213 6789	75.0914 8524	76.1816 7352	78.4239 3168	68
69	75.2064 2131	76.3105 0207	77.4356 1243	79.7506 9806	69
70	76.3944 3736	77.5330 7437	78.6937 3114	81.0829 9264	70
71	77.5854 2345	78.7592 1250	79.9560 4358	82.4208 3844	71
72	78.7793 8701	79.9889 2687	81.2225 6372	83.7642 5860	72
73	79.9763 3548	81.2222 2791	82.4933 0560	85.1132 7634	73
74	81.1762 7632	82.4591 2607	83.7682 8329	86.4679 1500	74
75	82.3792 1701	83.6996 3186	85.0475 1090	87.8281 9797	75
76	83.5851 6505	84.9437 5578	86.3310 0260	89.1941 4880	76
77	84.7941 2797	86.1915 0840	87.6187 7261	90.5657 9109	77
78	86.0061 1329	87.4429 0030	88.9108 3519	91.9431 4855	78
79	87.2211 2857	88.6979 4209	90.2072 0464	93.3262 4500	79
80	88.4391 8139	89.9566 4443	91.5078 9532	94.7151 0436	80
81	89.6602 7934	91.2190 1797	92.8129 2164	96.1097 5062	81
82	90.8844 3004	92.4850 7344	94.1222 9804	97.5102 0792	82
83	92.1116 4112	93.7548 2157	95.4360 3904	98.9165 0045	83
84	93.3419 2022	95.0282 7313	96.7541 5917	100.3286 5254	84
85	94.5752 7502	96.3054 3893	98.0766 7303	101.7466 8859	85
86	95.8117 1321	97.5863 2980	99.4035 9527	103.1706 3312	86
87	97.0512 4249	98.8709 5659	100.7349 4059	104.6005 1076	87
88	98.2938 7060	100.1593 3021	102.0707 2373	106.0363 4622	88
89	99.5396 0527	101.4514 6159	103.4109 5947	107.4781 6433	89
90	100.7884 5429	102.7473 6169	104.7556 6267	108.9259 9002	90
91	102.0404 2542	104.0470 4149	106.1048 4821	110.3798 4831	91
92	103.2955 2649	105.3505 1203	107.4585 3104	111.8397 6434	92
93	104.5537 6530	106.6577 8436	108.8167 2614	113.3057 6336	93
94	105.8151 4972	107.9688 6956	110.1794 4856	114.7778 7071	94
95	107.0796 8759	109.2837 7877	111.5467 1339	116.2561 1184	95
96	108.3473 8681	110.6025 2312	112.9185 3577	117.7405 1230	96
97	109.6182 5528	111.9251 1381	114.2949 3089	119.2310 9777	97
98	110.8923 0091	113.2515 6206	115.6759 1399	120.7278 9401	98
99	112.1695 3167	114.5818 7912	117.0615 0037	122.2309 2690	99
100	113.4499 5550	115.9160 7626	118.4517 0537	123.7402 2243	100

Logarithm of Amount of 1 per Annum at Compound Interest

$log\ s_{\overline{n}|}$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	1.734 9730	1.739 5904	1.744 2221	1.753 5283	51
52	1.743 9600	1.748 6718	1.753 3985	1.762 8966	52
53	1.752 7865	1.757 5929	1.762 4147	1.772 1048	53
54	1.761 4586	1.766 3596	1.771 2766	1.781 1591	54
55	1.769 9821	1.774 9777	1.779 9900	1.790 0650	55
56	1.778 3621	1.783 4524	1.788 5602	1.798 8279	56
57	1.786 6039	1.791 7891	1.796 9923	1.807 4529	57
58	1.794 7122	1.799 9922	1.805 2911	1.815 9449	58
59	1.802 6916	1.808 0666	1.813 4612	1.824 3084	59
60	1.810 5465	1.816 0165	1.821 5069	1.832 5477	60
61	1.818 2809	1.823 8462	1.829 4322	1.840 6671	61
62	1.825 8988	1.831 5593	1.837 2414	1.848 6702	62
63	1.833 4039	1.839 1597	1.844 9379	1.856 5611	63
64	1.840 7999	1.846 6510	1.852 5254	1.864 3431	64
65	1.848 0900	1.854 0367	1.860 0072	1.872 0197	65
66	1.855 2775	1.861 3198	1.867 3867	1.879 5941	66
67	1.862 3656	1.868 5035	1.874 6667	1.887 0694	67
68	1.869 3571	1.875 5907	1.881 8505	1.894 4486	68
69	1.876 2549	1.882 5843	1.888 9407	1.901 7345	69
70	1.883 0617	1.889 4871	1.895 9401	1.908 9298	70
71	1.889 7802	1.896 3014	1.902 8513	1.916 0370	71
72	1.896 4126	1.903 0299	1.909 6767	1.923 0587	72
73	1.902 9615	1.909 6749	1.916 4187	1.929 9973	73
74	1.909 4291	1.916 2387	1.923 0796	1.936 8550	74
75	1.915 8177	1.922 7236	1.929 6616	1.943 6340	75
76	1.922 1292	1.929 1315	1.936 1668	1.950 3363	76
77	1.928 3658	1.935 4645	1.942 5972	1.956 9642	77
78	1.934 5294	1.941 7245	1.948 9547	1.963 5194	78
79	1.940 6217	1.947 9135	1.955 2412	1.970 0038	79
80	1.946 6447	1.954 0333	1.961 4586	1.976 4193	80
81	1.952 6001	1.960 0854	1.967 6084	1.982 7675	81
82	1.958 4895	1.966 0716	1.973 6925	1.989 0501	82
83	1.964 3145	1.971 9936	1.979 7124	1.995 2687	83
84	1.970 0766	1.977 8529	1.985 6696	2.001 4250	84
85	1.975 7776	1.983 6508	1.991 5657	2.007 5203	85
86	1.981 4186	1.989 3890	1.997 4021	2.013 5561	86
87	1.987 0011	1.995 0687	2.003 1801	2.019 5338	87
88	1.992 5264	2.000 6914	2.008 9012	2.025 4548	88
89	1.997 9959	2.006 2583	2.014 5665	2.031 3202	89
90	2.003 4107	2.011 7707	2.020 1775	2.037 1315	90
91	2.008 7722	2.017 2297	2.025 7352	2.042 8898	91
92	2.014 0815	2.022 6366	2.031 2409	2.048 5963	92
93	2.019 3397	2.027 9926	2.036 6955	2.054 2520	93
94	2.024 5479	2.033 2986	2.042 1006	2.059 8581	94
95	2.029 7071	2.038 5557	2.047 4568	2.065 4158	95
96	2.034 8184	2.043 7650	2.052 7653	2.070 9259	96
97	2.039 8829	2.048 9275	2.058 0269	2.076 3895	97
98	2.044 9014	2.054 0442	2.063 2429	2.081 8076	98
99	2.049 8749	2.059 1159	2.068 4141	2.087 1811	99
100	2.054 8043	2.064 1437	2.073 5414	2.092 5109	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¼%	7/24%	⅓%	5/12%	n
101	114.7335 8038	117.2541 6482	119.8465 4439	125.2558 0669	101
102	116.0204 1434	118.5961 5613	121.2460 3287	126.7777 0589	102
103	117.3104 6537	119.9420 6159	122.6501 8632	128.3059 4633	103
104	118.6037 4153	121.2918 9260	124.0590 2027	129.8405 5444	104
105	119.9002 5089	122.6456 6062	125.4725 5034	131.3815 5675	105
106	121.2000 0152	124.0033 7713	126.8907 9217	132.9289 7990	106
107	122.5030 0152	125.3650 5365	128.3137 6148	134.4828 5065	107
108	123.8092 5902	126.7307 0172	129.7414 7402	136.0431 9586	108
109	125.1187 8217	128.1003 3294	131.1739 4560	137.6100 4251	109
110	126.4315 7913	129.4739 5891	132.6111 9208	139.1834 1769	110
111	127.7476 5807	130.8515 9129	134.0532 2939	140.7633 4860	111
112	129.0670 2722	132.2332 4176	135.5000 7349	142.3498 6255	112
113	130.3896 9479	133.6189 2205	136.9517 4040	143.9429 8698	113
114	131.7156 6902	135.0086 4391	138.4082 4620	145.5427 4942	114
115	133.0449 5820	136.4024 1912	139.8696 0702	147.1491 7754	115
116	134.3775 7059	137.8002 5951	141.3358 3905	148.7622 9912	116
117	135.7135 1452	139.2021 7693	142.8069 5851	150.3821 4203	117
118	137.0527 9830	140.6081 8328	144.2829 8170	152.0087 3429	118
119	138.3954 3030	142.0182 9048	145.7639 2498	153.6421 0401	119
120	139.7414 1888	143.4325 1049	147.2498 0477	155.2822 7945	120
121	141.0907 7242	144.8508 5532	148.7406 3745	156.9292 8895	121
122	142.4434 9935	146.2733 3698	150.2364 3958	158.5831 6098	122
123	143.7996 0810	147.6999 6754	151.7372 2771	160.2439 2415	123
124	145.1591 0712	149.1307 5912	153.2430 1847	161.9116 0717	124
125	146.5220 0489	150.5657 2383	154.7538 2853	163.5862 3887	125
126	147.8883 0990	152.0048 7386	156.2696 7463	165.2678 4819	126
127	149.2580 3068	153.4482 2141	157.7905 7354	166.9564 6423	127
128	150.6311 7575	154.8957 7872	159.3165 4212	168.6521 1616	128
129	152.0077 5369	156.3475 5807	160.8475 9726	170.3548 3331	129
130	153.3877 7308	157.8035 7178	162.3837 5592	172.0646 4512	130
131	154.7712 4251	159.2638 3220	163.9250 3510	173.7815 8114	131
132	156.1581 7062	160.7283 5171	165.4714 5189	175.5056 7106	132
133	157.5485 6604	162.1971 4274	167.0230 2339	177.2369 4469	133
134	158.9424 3746	163.6702 1774	168.5797 6680	178.9754 3196	134
135	160.3397 9355	165.1475 8920	170.1416 9936	180.7211 6293	135
136	161.7406 4304	166.6292 6967	171.7088 3836	182.4741 6777	136
137	163.1449 9464	168.1152 7171	173.2812 0115	184.2344 7681	137
138	164.5528 5713	169.6056 0792	174.8588 0516	186.0021 2046	138
139	165.9642 3927	171.1002 9094	176.4416 6784	187.7771 2929	139
140	167.3791 4987	172.5993 3346	178.0298 0673	189.5595 3400	140
141	168.7975 9775	174.1027 4818	179.6232 3942	191.3493 6539	141
142	170.2195 9174	175.6105 4786	181.2219 8355	193.1466 5441	142
143	171.6451 4072	177.1227 4529	182.8260 5683	194.9514 3214	143
144	173.0742 5357	178.6393 5330	184.4354 7702	196.7637 2977	144
145	174.5069 3921	180.1603 8475	186.0502 6194	198.5835 7865	145
146	175.9432 0655	181.6858 5254	187.6704 2948	200.4110 1023	146
147	177.3830 6457	183.2157 6961	189.2959 9758	202.2460 5610	147
148	178.8265 2223	184.7501 4893	190.9269 8424	204.0887 4800	148
149	180.2735 8854	186.2890 0353	192.5634 0752	205.9391 1779	149
150	181.7242 7251	187.8323 4646	194.2052 8554	207.7971 9744	150

Logarithm of Amount of 1 per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	2.059 6905	2.069 1283	2.078 6255	2.097 7979	101
102	2.064 5344	2.074 0706	2.083 6675	2.103 0429	102
103	2.069 3367	2.078 9715	2.088 6683	2.108 2468	103
104	2.074 0984	2.083 8318	2.093 6284	2.113 4104	104
105	2.078 8201	2.088 6522	2.098 5487	2.118 5344	105
106	2.083 5026	2.093 4335	2.103 4301	2.123 6197	106
107	2.088 1467	2.098 1765	2.108 2732	2.128 6669	107
108	2.092 7531	2.102 8818	2.113 0788	2.133 6768	108
109	2.097 3225	2.107 5502	2.117 8476	2.138 6501	109
110	2.101 8555	2.112 1824	2.122 5802	2.143 5875	110
111	2.106 3529	2.116 7790	2.127 2773	2.148 4896	111
112	2.110 8153	2.121 3406	2.131 9395	2.153 3571	112
113	2.115 2433	2.125 8680	2.136 5675	2.158 1905	113
114	2.119 6374	2.130 3615	2.141 1620	2.162 9906	114
115	2.123 9984	2.134 8221	2.145 7234	2.167 7579	115
116	2.128 3268	2.139 2500	2.150 2523	2.172 4929	116
117	2.132 6231	2.143 6460	2.154 7494	2.177 1963	117
118	2.136 8879	2.148 0106	2.159 2151	2.181 8686	118
119	2.141 1218	2.152 3443	2.163 6501	2.186 5102	119
120	2.145 3251	2.156 6476	2.168 0547	2.191 1219	120
121	2.149 4986	2.160 9211	2.172 4297	2.195 7040	121
122	2.153 6427	2.165 1652	2.176 7753	2.200 2571	122
123	2.157 7577	2.169 3804	2.181 0922	2.204 7815	123
124	2.161 8443	2.173 5672	2.185 3807	2.209 2780	124
125	2.165 9028	2.177 7261	2.189 6414	2.213 7468	125
126	2.169 9338	2.181 8575	2.193 8747	2.218 1883	126
127	2.173 9377	2.185 9619	2.198 0811	2.222 6032	127
128	2.177 9149	2.190 0396	2.202 2609	2.226 9918	128
129	2.181 8658	2.194 0911	2.206 4146	2.231 3544	129
130	2.185 7907	2.198 1168	2.210 5426	2.235 6917	130
131	2.189 6903	2.202 1172	2.214 6453	2.240 0038	131
132	2.193 5647	2.206 0924	2.218 7231	2.244 2912	132
133	2.197 4145	2.210 0432	2.222 7764	2.248 5542	133
134	2.201 2399	2.213 9697	2.226 8054	2.252 7934	134
135	2.205 0413	2.217 8723	2.230 8108	2.257 0090	135
136	2.208 8191	2.221 7513	2.234 7927	2.261 2014	136
137	2.212 5738	2.225 6071	2.238 7514	2.265 3709	137
138	2.216 3055	2.229 4402	2.242 6875	2.269 5179	138
139	2.220 0145	2.233 2507	2.246 6011	2.273 6427	139
140	2.223 7014	2.237 0391	2.250 4927	2.277 7456	140
141	2.227 3662	2.240 8056	2.254 3625	2.281 8271	141
142	2.231 0096	2.244 5506	2.258 2109	2.285 8872	142
143	2.234 6315	2.248 2743	2.262 0381	2.289 9264	143
144	2.238 2325	2.251 9771	2.265 8445	2.293 9450	144
145	2.241 8127	2.255 6593	2.269 6303	2.297 9433	145
146	2.245 3725	2.259 3211	2.273 3959	2.301 9216	146
147	2.248 9122	2.262 9629	2.277 1414	2.305 8801	147
148	2.252 4319	2.266 5848	2.280 8673	2.309 8190	148
149	2.255 9321	2.270 1872	2.284 5738	2.313 7388	149
150	2.259 4129	2.273 7704	2.288 2610	2.317 6396	150

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¼%	7/24%	⅓%	5/12%	n
151	183.1785 8319	189.3801 9080	195.8526 3650	209.6630 1910	151
152	184.6365 2965	190.9325 4969	197.5054 7862	211.5366 1501	152
153	186.0981 2097	192.4894 3630	199.1638 3021	213.4180 1758	153
154	187.5633 6627	194.0508 6382	200.8277 0965	215.3072 5932	154
155	189.0322 7469	195.6168 4551	202.4971 3534	217.2043 7290	155
156	190.5048 5538	197.1873 9464	204.1721 2580	219.1093 9112	156
157	191.9811 1752	198.7625 2454	205.8526 9955	221.0223 4691	157
158	193.4610 7031	200.3422 4857	207.5388 7521	222.9432 7336	158
159	194.9447 2298	201.9265 8013	209.2306 7146	224.8722 0366	159
160	196.4320 8479	203.5155 3265	210.9281 0704	226.8091 7118	160
161	197.9231 6500	205.1091 1962	212.6312 0073	228.7542 0939	161
162	199.4179 7292	206.7073 5455	214.3399 7139	230.7073 5193	162
163	200.9165 1785	208.3102 5101	216.0544 3797	232.6686 3256	163
164	202.4188 0914	209.9178 2257	217.7746 1942	234.6380 8520	164
165	203.9248 5617	211.5300 8289	219.5005 3482	236.6157 4389	165
166	205.4346 6831	213.1470 4563	221.2322 0327	238.6016 4282	166
167	206.9482 5498	214.7687 2451	222.9696 4395	240.5958 1633	167
168	208.4656 2562	216.3951 3329	224.7128 7610	242.5982 9890	168
169	209.9867 8968	218.0262 8576	226.4619 1902	244.6091 2515	169
170	211.5117 5665	219.6621 9576	228.2167 9208	246.6283 2983	170
171	213.0405 3605	221.3028 7717	229.9775 1472	248.6559 4788	171
172	214.5731 3739	222.9483 4389	231.7441 0643	250.6920 1433	172
173	216.1095 7023	224.5986 0989	233.5165 8679	252.7365 6439	173
174	217.6498 4415	226.2536 8917	235.2949 7541	254.7896 3340	174
175	219.1939 6876	227.9135 9577	237.0792 9200	256.8512 5688	175
176	220.7419 5369	229.5783 4375	238.8695 5630	258.9214 7045	176
177	222.2938 0857	231.2479 4726	240.6657 8816	261.0003 0991	177
178	223.8495 4309	232.9224 2044	242.4680 0745	263.0878 1120	178
179	225.4091 6695	234.6017 7750	244.2762 3414	265.1840 1041	179
180	226.9726 8987	236.2860 3268	246.0904 8826	267.2889 4379	180
181	228.5401 2159	237.9752 0028	247.9107 8988	269.4026 4772	181
182	230.1114 7190	239.6692 9461	249.7371 5918	271.5251 5875	182
183	231.6867 5058	241.3683 3005	251.5696 1638	273.6565 1358	183
184	233.2659 6745	243.0723 2101	253.4081 8177	275.7967 4905	184
185	234.8491 3237	244.7812 8195	255.2528 7571	277.9459 0218	185
186	236.4362 5520	246.4952 2736	257.1037 1863	280.1040 1010	186
187	238.0273 4584	248.2141 7177	258.9607 3102	282.2711 1014	187
188	239.6224 1420	249.9381 2977	260.8239 3346	284.4472 3977	188
189	241.2214 7024	251.6671 1598	262.6933 4657	286.6324 3660	189
190	242.8245 2392	253.4011 4507	264.5689 9106	288.8267 3842	190
191	244.4315 8523	255.1402 3174	266.4508 8769	291.0301 8316	191
192	246.0426 6419	256.8843 9075	268.3390 5732	293.2428 0892	192
193	247.6577 7085	258.6336 3689	270.2335 2084	295.4646 5396	193
194	249.2769 1528	260.3879 8500	272.1342 9925	297.6957 5669	194
195	250.9001 0756	262.1474 4995	274.0414 1358	299.9361 5568	195
196	252.5273 5783	263.9120 4668	275.9548 8495	302.1858 8966	196
197	254.1586 7623	265.6817 9015	277.8747 3457	304.4449 9753	197
198	255.7940 7292	267.4566 9537	279.8009 8369	306.7135 1835	198
199	257.4335 5810	269.2367 7740	281.7336 5363	308.9914 9135	199
200	259.0771 4200	271.0220 5134	283.6727 6581	311.2789 5589	200

Logarithm of Amount of 1 per Annum at Compound Interest

$\log s_{\overline{n}|}$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	2.262 8747	2.277 3345	2.291 9295	2.321 5219	151
152	2.266 3176	2.280 8800	2.295 5792	2.325 3856	152
153	2.269 7420	2.284 4069	2.299 2104	2.329 2311	153
154	2.273 1480	2.287 9155	2.302 8237	2.333 0587	154
155	2.276 5359	2.291 4063	2.306 4189	2.336 8685	155
156	2.279 9061	2.294 8792	2.309 9964	2.340 6610	156
157	2.283 2585	2.298 3345	2.313 5566	2.344 4362	157
158	2.286 5936	2.301 7726	2.317 0995	2.348 1944	158
159	2.289 9115	2.305 1934	2.320 6254	2.351 9357	159
160	2.293 2124	2.308 5976	2.324 1345	2.355 6606	160
161	2.296 4966	2.311 9849	2.327 6270	2.359 3691	161
162	2.299 7643	2.315 3559	2.331 1031	2.363 0614	162
163	2.303 0157	2.318 7106	2.334 5632	2.366 7378	163
164	2.306 2509	2.322 0493	2.338 0073	2.370 3985	164
165	2.309 4702	2.325 3722	2.341 4356	2.374 0437	165
166	2.312 6738	2.328 6793	2.344 8483	2.377 6734	166
167	2.315 8617	2.331 9710	2.348 2457	2.381 2881	167
168	2.319 0345	2.335 2475	2.351 6280	2.384 8878	168
169	2.322 1920	2.338 5089	2.354 9952	2.388 4727	169
170	2.325 3345	2.341 7554	2.358 3476	2.392 0430	170
171	2.328 4623	2.344 9870	2.361 6854	2.395 5989	171
172	2.331 5753	2.348 2043	2.365 0087	2.399 1405	172
173	2.334 6740	2.351 4071	2.368 3178	2.402 6681	173
174	2.337 7584	2.354 5957	2.371 6127	2.406 1818	174
175	2.340 8286	2.357 7702	2.374 8936	2.409 6817	175
176	2.343 8848	2.360 9309	2.378 1608	2.413 1681	176
177	2.346 9274	2.364 0779	2.381 4144	2.416 6410	177
178	2.349 9562	2.367 2113	2.384 6544	2.420 1007	178
179	2.352 9716	2.370 3313	2.387 8812	2.423 5473	179
180	2.355 9736	2.373 4380	2.391 0949	2.426 9810	180
181	2.358 9624	2.376 5317	2.394 2954	2.430 4019	181
182	2.361 9383	2.379 6124	2.397 4832	2.433 8101	182
183	2.364 9012	2.382 6803	2.400 6581	2.437 2058	183
184	2.367 8514	2.385 7355	2.403 8206	2.440 5892	184
185	2.370 7890	2.388 7782	2.406 9707	2.443 9603	185
186	2.373 7141	2.391 8085	2.410 1084	2.447 3193	186
187	2.376 6269	2.394 8266	2.413 2339	2.450 6664	187
188	2.379 5275	2.397 8325	2.416 3474	2.454 0017	188
189	2.382 4159	2.400 8264	2.419 4491	2.457 3253	189
190	2.385 2925	2.403 8086	2.422 5389	2.460 6374	190
191	2.388 1573	2.406 7790	2.425 6171	2.463 9381	191
192	2.391 0104	2.409 7377	2.428 6839	2.467 2274	192
193	2.393 8520	2.412 6850	2.431 7392	2.470 5055	193
194	2.396 6820	2.415 6209	2.434 7833	2.473 7726	194
195	2.399 5009	2.418 5457	2.437 8162	2.477 0288	195
196	2.402 3085	2.421 4592	2.440 8381	2.480 2742	196
197	2.405 1049	2.424 3618	2.443 8491	2.483 5089	197
198	2.407 8905	2.427 2535	2.446 8492	2.486 7329	198
199	2.410 6652	2.430 1344	2.449 8387	2.489 9465	199
200	2.413 4291	2.433 0046	2.452 8176	2.493 1498	200

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	½%	7/12%	⅝%	⅔%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0050 0000	2.0058 3333	2.0062 5000	2.0066 6667	2
3	3.0150 2500	3.0175 3403	3.1087 8906	3.0200 4444	3
4	4.0301 0013	4.0351 3631	4.0376 5649	4.0401 7807	4
5	5.0502 5063	5.0586 7460	5.0628 9185	5.0671 1259	5
6	6.0755 0188	6.0881 8354	6.0945 3492	6.1008 9335	6
7	7.1058 7939	7.1236 9794	7.1326 2576	7.1415 6597	7
8	8.1414 0879	8.1652 5284	8.1772 0468	8.1891 7641	8
9	9.1821 1583	9.2128 8349	9.2283 1220	9.2437 7092	9
10	10.2280 2641	10.2666 2531	10.2859 8916	10.3053 9606	10
11	11.2791 6654	11.3265 1396	11.3502 7659	11.3740 9870	11
12	12.3355 6237	12.3925 8529	12.4212 1582	12.4499 2602	12
13	13.3972 4018	13.4648 7537	13.4988 4842	13.5329 2553	13
14	14.4642 2639	14.5434 2048	14.5832 1622	14.6231 4503	14
15	15.5365 4752	15.6282 5710	15.6743 6132	15.7206 3266	15
16	16.6142 3026	16.7194 2193	16.7723 2608	16.8254 3688	16
17	17.6973 0141	17.8169 5189	17.8771 5312	17.9376 0646	17
18	18.7857 8791	18.9208 8411	18.9888 8532	19.0571 9051	18
19	19.8797 1685	20.0312 5593	20.1075 6586	20.1842 3844	19
20	20.9791 1544	21.1481 0493	21.2332 3814	21.3188 0003	20
21	22.0840 1101	22.2714 6887	22.3659 4588	22.4609 2536	21
22	23.1944 3107	23.4013 8577	23.5057 3304	23.6106 6487	22
23	24.3104 0322	24.5378 9386	24.6526 4387	24.7680 6930	23
24	25.4319 5524	25.6810 3157	25.8067 2290	25.9331 8976	24
25	26.5591 1502	26.8308 3759	26.9680 1492	27.1060 7769	25
26	27.6919 1059	27.9873 5081	28.1365 6501	28.2867 8488	26
27	28.8303 7015	29.1506 1035	29.3124 1854	29.4753 6344	27
28	29.9745 2200	30.3206 5558	30.4956 2116	30.6718 6586	28
29	31.1243 9461	31.4975 2607	31.6862 1879	31.8763 4497	29
30	32.2800 1658	32.6812 6164	32.8842 5766	33.0888 5394	30
31	33.4414 1666	33.8719 0233	34.0897 8427	34.3094 4630	31
32	34.6086 2375	35.0694 8843	35.3028 4542	35.5381 7594	32
33	35.7816 6686	36.2740 6045	36.5234 8820	36.7750 9711	33
34	36.9605 7520	37.4856 5913	37.7517 6000	38.0202 6443	34
35	38.1453 7807	38.7043 2548	38.9877 0850	39.2737 3286	35
36	39.3361 0496	39.9301 0071	40.2313 8168	40.5355 5774	36
37	40.5327 8549	41.1630 2630	41.4828 2782	41.8057 9479	37
38	41.7354 4942	42.4031 4395	42.7420 9549	43.0845 0009	38
39	42.9441 2666	43.6504 9562	44.0092 3359	44.3717 3009	39
40	44.1588 4730	44.9051 2352	45.2842 9130	45.6675 4163	40
41	45.3796 4153	46.1670 7007	46.5673 1812	46.9719 9191	41
42	46.6065 3974	47.4363 7798	47.8583 6386	48.2851 3852	42
43	47.8395 7244	48.7130 9018	49.1574 7863	49.6070 3944	43
44	49.0787 7030	49.9972 4988	50.4647 1287	50.9377 5304	44
45	50.3241 6415	51.2889 0050	51.7801 1733	52.2773 3806	45
46	51.5757 8497	52.5880 8575	53.1037 4306	53.6258 5365	46
47	52.8336 6390	53.8948 4959	54.4356 4146	54.9833 5934	47
48	54.0978 3222	55.2092 3621	55.7758 6421	56.3499 1507	48
49	55.3683 2138	56.5312 9009	57.1244 6337	57.7255 8117	49
50	56.6451 6299	57.8610 5595	58.4814 9126	59.1104 1837	50

Logarithm of Amount of 1 per Annum at Compound Interest

$\log s_{\overline{n}|}$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.302 1144	0.302 2948	0.302 3851	0.302 4752	2
3	0.479 2910	0.479 6522	0.479 8327	0.480 0133	3
4	0.605 3159	0.605 8582	0.606 1293	0.606 4005	4
5	0.703 3130	0.704 0367	0.704 3986	0.704 7606	5
6	0.783 5821	0.784 4877	0.784 9406	0.785 3934	6
7	0.851 6178	0.852 7055	0.853 2495	0.853 7934	7
8	0.910 6996	0.911 9696	0.912 6048	0.913 2402	8
9	0.962 9427	0.964 3956	0.965 1223	0.965 8491	9
10	1.009 7918	1.011 4277	1.012 2460	1.013 0647	10
11	1.052 2770	1.054 0963	1.055 0065	1.055 9170	11
12	1.091 1591	1.093 1619	1.094 1641	1.095 1668	12
13	1.127 0153	1.129 2024	1.130 2967	1.131 3917	13
14	1.160 2952	1.162 6666	1.163 8533	1.165 0408	14
15	1.191 3545	1.193 9105	1.195 1898	1.196 4700	15
16	1.220 4802	1.223 2213	1.224 5933	1.225 9664	16
17	1.247 9071	1.250 8334	1.252 2983	1.253 7645	17
18	1.273 8294	1.276 9414	1.278 4995	1.280 0588	18
19	1.298 4102	1.301 7082	1.303 3595	1.305 0123	19
20	1.321 7872	1.325 2715	1.327 0163	1.328 7627	20
21	1.344 0779	1.347 7488	1.349 5873	1.351 4277	21
22	1.365 3838	1.369 2416	1.371 1738	1.373 1082	22
23	1.385 7922	1.389 8373	1.391 8635	1.393 8921	23
24	1.405 3797	1.409 6124	1.411 7328	1.413 8560	24
25	1.424 2136	1.428 6343	1.430 8489	1.433 0667	25
26	1.442 3529	1.446 9618	1.449 2711	1.451 5836	26
27	1.459 8502	1.464 6477	1.467 0517	1.469 4591	27
28	1.476 7523	1.481 7386	1.484 2375	1.486 7402	28
29	1.493 1009	1.498 2765	1.500 8704	1.503 4685	29
30	1.508 9337	1.514 2988	1.516 9880	1.519 6817	30
31	1.524 2847	1.529 8395	1.532 6243	1.535 4137	31
32	1.539 1844	1.544 9295	1.547 8097	1.550 6951	32
33	1.553 6606	1.559 5961	1.562 5722	1.565 5538	33
34	1.567 7387	1.573 8651	1.576 9372	1.580 0151	34
35	1.581 4419	1.587 7595	1.590 9277	1.594 1022	35
36	1.594 7914	1.601 3004	1.604 5649	1.607 8362	36
37	1.607 8064	1.614 5073	1.617 8684	1.621 2365	37
38	1.620 5051	1.627 3981	1.630 8558	1.634 3210	38
39	1.632 9038	1.639 9892	1.643 5438	1.647 1064	39
40	1.645 0177	1.652 2959	1.655 9476	1.659 6076	40
41	1.656 8610	1.664 3324	1.668 0813	1.671 8390	41
42	1.668 4468	1.676 1115	1.679 9578	1.683 8134	42
43	1.679 7873	1.687 6457	1.691 5896	1.695 5433	43
44	1.690 8937	1.698 9461	1.702 9878	1.707 0398	44
45	1.701 7766	1.710 0234	1.714 1630	1.718 3135	45
46	1.712 4459	1.720 8874	1.725 1251	1.729 3742	46
47	1.722 9107	1.731 5473	1.735 8833	1.740 2312	47
48	1.733 1799	1.742 0117	1.746 4463	1.750 8932	48
49	1.743 2613	1.752 2889	1.756 8221	1.761 3683	49
50	1.753 1628	1.762 3863	1.767 0184	1.771 6641	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	½%	7/12%	⅝%	⅔%	n
51	57.9283 8880	59.1985 7877	59.8470 0058	60.5044 8783	51
52	59.2180 3075	60.5439 0381	61.2210 4434	61.9078 5108	52
53	60.5141 2090	61.8970 7659	62.6036 7586	63.3205 7009	53
54	61.8166 9150	63.2581 4287	63.9949 4884	64.7427 0722	54
55	63.1257 7496	64.6271 4870	65.3949 1727	66.1743 2527	55
56	64.4414 0384	66.0041 4040	66.8036 3550	67.6154 8744	56
57	65.7636 1086	67.3891 6455	68.2211 5822	69.0662 5736	57
58	67.0924 2891	68.7822 6801	69.6475 4046	70.5266 9907	58
59	68.4278 9105	70.1834 9791	71.0828 3759	71.9968 7706	59
60	69.7700 3051	71.5929 0165	72.5271 0532	73.4768 5625	60
61	71.1188 8066	73.0105 2691	73.9803 9973	74.9667 0195	61
62	72.4744 7507	74.4364 2165	75.4427 7723	76.4664 7997	62
63	73.8368 4744	75.8706 3411	76.9142 9459	77.9762 5650	63
64	75.2060 3168	77.3132 1281	78.3950 0893	79.4960 9821	64
65	76.5820 6184	78.7642 0655	79.8849 7774	81.0260 7220	65
66	77.9649 7215	80.2236 6442	81.3842 5885	82.5662 4601	66
67	79.3547 9701	81.6916 3579	82.8929 1046	84.1166 8765	67
68	80.7515 7099	83.1681 7034	84.4109 9115	85.6774 6557	68
69	82.1553 2885	84.6533 1800	85.9385 5985	87.2486 4867	69
70	83.5661 0549	86.1471 2902	87.4756 7585	88.8303 0633	70
71	84.9839 3602	87.6496 5394	89.0223 9882	90.4225 0837	71
72	86.4088 5570	89.1609 4359	90.5787 8882	92.0253 2510	72
73	87.8408 9998	90.6810 4909	92.1449 0625	93.6388 2726	73
74	89.2801 0448	92.2100 2188	93.7208 1191	95.2630 8611	74
75	90.7265 0500	93.7479 1367	95.3065 6698	96.8981 7335	75
76	92.1801 3752	95.2947 7650	96.9022 3303	98.5441 6118	76
77	93.6410 3821	96.8506 6270	98.5078 7198	100.2011 2225	77
78	95.1092 4340	98.4156 2490	100.1235 4618	101.8691 2973	78
79	96.5847 8962	99.9897 1604	101.7493 1835	103.5482 5726	79
80	98.0677 1357	101.5729 8938	103.3852 5159	105.2385 7898	80
81	99.5580 5214	103.1654 9849	105.0314 0941	106.9401 6950	81
82	101.0558 4240	104.7672 9723	106.6878 5572	108.6531 0397	82
83	102.5611 2161	106.3784 3980	108.3546 5482	110.3774 5799	83
84	104.0739 2722	107.9989 8070	110.0318 7141	112.1133 0771	84
85	105.5942 9685	109.6289 7475	111.7195 7061	113.8607 2977	85
86	107.1222 6834	111.2684 7710	113.4178 1792	115.6198 0130	86
87	108.6578 7968	112.9175 4322	115.1266 7928	117.3905 9997	87
88	110.2011 6908	114.5762 2889	116.8462 2103	119.1732 0397	88
89	111.7521 7492	116.2445 9022	118.5765 0991	120.9676 9200	89
90	113.3109 3580	117.9226 8367	120.3176 1310	122.7741 4328	90
91	114.8774 9048	119.6105 6599	122.0695 9818	124.5926 3757	91
92	116.4518 7793	121.3082 9429	123.8325 3317	126.4232 5515	92
93	118.0341 3732	123.0159 2601	125.6064 8650	128.2660 7685	93
94	119.6243 0800	124.7335 1891	127.3915 2704	130.1211 8403	94
95	121.2224 2954	126.4611 3110	129.1877 2408	131.9886 5859	95
96	122.8285 4169	128.1988 2103	130.9951 4736	133.8685 8298	96
97	124.4426 8440	129.9466 4749	132.8138 6703	135.7610 4020	97
98	126.0648 9782	131.7046 6960	134.6439 5370	137.6661 1380	98
99	127.6952 2231	133.4729 4684	136.4854 7841	139.5838 8790	99
100	129.3336 9842	135.2515 3903	138.3385 1265	141.5144 4715	100

$\log s_n$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	1.762 8914	1.772 3113	1.777 0425	1.781 7876	51
52	1.772 4539	1.782 0704	1.786 9007	1.791 7458	52
53	1.781 8568	1.791 6701	1.796 5998	1.801 5448	53
54	1.791 1057	1.801 1165	1.806 1457	1.811 1908	54
55	1.800 2067	1.810 4150	1.815 5440	1.820 6895	55
56	1.809 1650	1.819 5712	1.824 8001	1.830 0462	56
57	1.817 9856	1.828 5901	1.833 9191	1.839 2659	57
58	1.826 6735	1.837 4765	1.842 9057	1.848 3536	58
59	1.835 2331	1.846 2350	1.851 7647	1.857 3137	59
60	1.843 6689	1.854 8700	1.860 5003	1.866 1505	60
61	1.851 9849	1.863 3855	1.869 1167	1.874 8684	61
62	1.860 1850	1.871 7855	1.877 6176	1.883 4711	62
63	1.868 2731	1.880 0737	1.886 0071	1.891 9624	63
64	1.876 2527	1.888 2537	1.894 2885	1.900 3458	64
65	1.884 1271	1.896 3289	1.902 4651	1.908 6248	65
66	1.891 8995	1.904 3025	1.910 5404	1.916 8025	66
67	1.899 5732	1.912 1776	1.918 5174	1.924 8822	67
68	1.907 1510	1.919 9572	1.926 3990	1.932 8666	68
69	1.914 6357	1.927 6440	1.934 1881	1.940 7587	69
70	1.922 0301	1.935 2408	1.941 8873	1.948 5612	70
71	1.929 3369	1.942 7502	1.949 4993	1.956 2765	71
72	1.936 5583	1.950 1746	1.957 0265	1.963 9073	72
73	1.943 6968	1.957 5165	1.964 4714	1.971 4560	73
74	1.950 7547	1.964 7781	1.971 8360	1.978 9247	74
75	1.957 7342	1.971 9616	1.979 1228	1.986 3156	75
76	1.964 6373	1.979 0691	1.986 3337	1.993 6309	76
77	1.971 4662	1.986 1026	1.993 4709	2.000 8726	77
78	1.978 2227	1.993 0641	2.000 5362	2.008 0426	78
79	1.984 9088	1.999 9554	2.007 5315	2.015 1428	79
80	1.991 5260	2.006 7783	2.014 4586	2.022 1749	80
81	1.998 0764	2.013 5345	2.021 3192	2.029 1409	81
82	2.004 5614	2.020 2257	2.028 1150	2.036 0421	82
83	2.010 9827	2.026 8536	2.034 8475	2.042 8804	83
84	2.017 3420	2.033 4197	2.041 5185	2.049 6572	84
85	2.023 6405	2.039 9253	2.048 1292	2.056 3740	85
86	2.029 8798	2.046 3722	2.054 6813	2.063 0322	86
87	2.036 0612	2.052 7614	2.061 1760	2.069 6333	87
88	2.042 1862	2.059 0945	2.067 6146	2.076 1786	88
89	2.048 2559	2.065 3728	2.073 9986	2.082 6694	89
90	2.054 2718	2.071 5974	2.080 3292	2.089 1069	90
91	2.060 2349	2.077 7696	2.086 6075	2.095 4924	91
92	2.066 1465	2.083 8905	2.092 8348	2.101 8270	92
93	2.072 0076	2.089 9613	2.099 0121	2.108 1118	93
94	2.077 8194	2.095 9831	2.105 1405	2.114 3480	94
95	2.083 5830	2.101 9571	2.111 2212	2.120 5366	95
96	2 089 2993	2 107 8840	2 117 2552	2.126 6787	96
97	2.094 9694	2.113 7651	2.123 2435	2.132 7751	97
98	2.100 5942	2.119 6012	2.129 1869	2.138 8270	98
99	2.106 1746	2.125 3933	2.135 0864	2.144 8353	99
100	2.111 7117	2.131 1422	2.140 9431	2.150 8008	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	½%	7/12%	⅝%	⅔%	n
101	130.9803 6692	137.0405 0634	140.2031 2836	143.4578 7680	101
102	132.6352 6875	138.8399 0929	142.0793 9791	145.4142 6264	102
103	134.2984 4509	140.6498 0876	143.9673 9414	147.3836 9106	103
104	135.9699 3732	142.4702 6598	145.8671 9036	149.3662 4900	104
105	137.6497 8701	144.3013 4253	147.7788 6030	151.3620 2399	105
106	139.3380 3594	146.1431 0036	149.7024 7817	153.3711 0415	106
107	141.0347 2612	147.9956 0178	151.6381 1866	155.3935 7818	107
108	142.7398 9975	149.8589 0946	153.5858 5690	157.4295 3537	108
109	144.4535 9925	151.7330 8643	155.5457 6851	159.4790 6560	109
110	146.1758 6725	153.6181 9610	157.5179 2956	161.5422 5937	110
111	147.9067 4658	155.5143 0225	159.5024 1662	163.6192 0777	111
112	149.6462 8032	157.4214 6901	161.4993 0673	165.7100 0249	112
113	151.3945 1172	159.3397 6091	163.5086 7739	167.8147 3584	113
114	153.1514 8428	161.2692 4285	165.5306 0663	169.9335 0074	114
115	154.9172 4170	163.2099 8010	167.5651 7292	172.0663 9075	115
116	156.6918 2791	165.1620 3832	169.6124 5525	174.2135 0002	116
117	158.4752 8704	167.1254 8354	171.6725 3310	176.3749 2335	117
118	160.2676 6348	169.1003 8219	173.7454 8643	178.5507 5618	118
119	162.0690 0180	171.0868 0109	175.8313 9572	180.7410 9455	119
120	163.8793 4681	173.0848 0743	177.9303 4194	182.94[illegible] 3518	120
121	165.6987 4354	175.0944 6881	180.0424 0658	185.1656 7542	121
122	167.5272 3726	177.1158 5321	182.1676 7162	187.4001 1325	122
123	169.3648 7344	179.1490 2902	184.3062 1957	189.6494 4734	123
124	171.2116 9781	181.1940 6502	186.4581 3344	191.9137 7699	124
125	173.0677 5630	183.2510 3040	188.6234 9677	194.1932 0217	125
126	174.9330 9508	185.3199 9474	190.8023 9363	196.4878 2352	126
127	176.8077 6056	187.4010 2805	192.9949 0859	198.7977 4234	127
128	178.6917 9936	189.4942 0071	195.2011 2677	201.1230 6062	128
129	180.5852 5836	191.5995 8355	197.4211 3381	203.4638 8103	129
130	182.4881 8465	193.7172 4778	199.6550 1589	205.8203 0690	130
131	184.4006 2557	195.8472 6506	201.9028 5974	208.1924 4228	131
132	186.3226 2870	197.9897 0744	204.1647 5262	210.5803 9189	132
133	188.2542 4184	200.1446 4740	206.4407 8232	212.9842 6117	133
134	190.1955 1305	202.3121 5785	208.7310 3721	215.4041 5625	134
135	192.1464 9062	204.4923 1210	211.0356 0619	217.8401 8396	135
136	194.1072 2307	206.6851 8392	213.3545 7873	220.2924 5185	136
137	196.0777 5919	208.8908 4749	215.6880 4485	222.7610 6820	137
138	198.0581 4798	211.1093 7744	218.0360 9513	225.2461 4198	138
139	200.0484 3872	213.3408 4881	220.3988 2072	227.7477 8293	139
140	202.0486 8092	215.5853 3709	222.7763 1335	230.2661 0148	140
141	204.0589 2432	217.8429 1822	225.1686 6531	232.8012 0883	141
142	206.0792 1894	220.1136 6858	227.5759 6947	235.3532 1688	142
143	208.1096 1504	222.3976 6498	229.9983 1928	237.9222 3833	143
144	210.1501 6311	224.6949 8469	232.4358 0878	240.5083 8659	144
145	212.2009 1393	227.0057 0544	234.8885 3258	243.1117 7583	145
146	214.2619 1850	229.3299 0538	237.3565 8591	245.7325 2100	146
147	216.3332 2809	231.6676 6317	239.8400 6457	248.3707 3781	147
148	218.4148 9423	234.0190 5787	242.3390 6497	251.0265 4273	148
149	220.5069 6870	236.3841 6904	244.8536 8413	253.7000 5301	149
150	222.6095 0354	238.7630 7669	247.3840 1966	256.3913 8670	150

Logarithm of Amount of 1 per Annum at Compound Interest

$$log\ s_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	2.117 2062	2.136 8489	2.146 7577	2.156 7244	101
102	2.122 6590	2.142 5143	2.152 5311	2.162 6070	102
103	2.128 0710	2.148 1391	2.158 2641	2.168 4494	103
104	2.133 4429	2.153 7242	2.163 9576	2.174 2525	104
105	2.138 7755	2.159 2703	2.169 6123	2.180 0169	105
106	2.144 0697	2.164 7783	2.175 2290	2.185 7435	106
107	2.149 3261	2.170 2488	2.180 8084	2.181 4331	107
108	2.154 5454	2.175 6825	2.186 3512	2.197 0862	108
109	2.159 7283	2.181 0803	2.191 8582	2.202 7037	109
110	2.164 8757	2.186 4427	2.197 3300	2.208 2862	110
111	2.169 9880	2.191 7703	2.202 7673	2.213 8343	111
112	2.175 0659	2.197 0640	2.208 1706	2.219 3487	112
113	2.180 1101	2.202 3241	2.213 5408	2.224 8301	113
114	2.185 1212	2.207 5516	2.218 8783	2.230 2790	114
115	2.190 0998	2.212 7467	2.224 1838	2.235 6961	115
116	2.195 0464	2.217 9103	2.229 4578	2.241 0818	116
117	2.199 9616	2.223 0426	2.234 7008	2.246 4368	117
118	2.204 8459	2.228 1446	2.239 9135	2.251 7617	118
119	2.209 7000	2.233 2165	2.245 0965	2.257 0569	119
120	2.214 5243	2.238 2590	2.250 2500	2.262 3230	120
121	2.219 3192	2.243 2724	2.255 3748	2.267 5605	121
122	2.224 0855	2.248 2574	2.260 4713	2.272 7699	122
123	2.228 8233	2.253 2145	2.265 5400	2.277 9515	123
124	2.233 5334	2.258 1440	2.270 5813	2.283 1061	124
125	2.238 2162	2.263 0464	2.275 5958	2.288 2340	125
126	2.242 8720	2.267 9223	2.280 5838	2.293 3357	126
127	2.247 5013	2.272 7720	2.285 5458	2.298 4115	127
128	2.252 1046	2.277 5959	2.290 4823	2.303 4619	128
129	2.256 6823	2.282 3945	2.295 3936	2.308 4873	129
130	2.261 2348	2.287 1683	2.300 2802	2.313 4882	130
131	2.265 7624	2.291 9175	2.305 1424	2.318 4650	131
132	2.270 2656	2.296 6427	2.309 9808	2.323 4179	132
133	2.274 7448	2.301 3440	2.314 7955	2.328 3475	133
134	2.279 2003	2.306 0220	2.319 5871	2.333 2541	134
135	2.283 6325	2.310 6770	2.324 3558	2.338 1380	135
136	2.288 0417	2.315 3094	2.329 1019	2.342 9996	136
137	2.292 4283	2.319 9194	2.333 8261	2.347 8393	137
138	2.296 7927	2.324 5075	2.338 5284	2.352 6574	138
139	2.301 1352	2.329 0740	2.343 2093	2.357 4542	139
140	2.305 4561	2.333 6192	2.347 8690	2.362 2300	140
141	2.309 7556	2.338 1434	2.352 5079	2.366 9853	141
142	2.314 0342	2.342 6470	2.357 1264	2.371 7202	142
143	2.318 2921	2.347 1302	2.361 7246	2.376 4351	143
144	2.322 5297	2.351 5934	2.366 3031	2.381 1302	144
145	2.326 7473	2.356 0368	2.370 8618	2.385 8060	145
146	2.330 9450	2.360 4607	2.375 4013	2.390 4627	146
147	2.335 1233	2.364 8654	2.379 9216	2.395 1004	147
148	2.339 2822	2.369 2513	2.384 4234	2.399 7196	148
149	2.343 4223	2.373 6184	2.388 9066	2.404 3206	149
150	2.347 5437	2.377 9672	2.393 3716	2.408 9034	150

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	½%	7/12%	⅝%	⅔%	n
151	224.7225 5106	241.1558 6130	249.9301 6978	259.1006 6261	151
152	226.8461 6382	243.5626 0383	252.4922 3334	261.8280 0036	152
153	228.9803 9464	245.9833 8568	255.0703 0980	264.5735 2036	153
154	231.1252 9661	248.4182 8877	257.6644 9923	267.3373 4383	154
155	233.2809 2309	250.8673 9545	260.2749 0235	270.1195 9279	155
156	235.4473 2771	253.3307 8859	262.9016 2049	272.9203 9008	156
157	237.6245 6435	255.8085 5153	265.5447 5562	275.7398 5934	157
158	239.8126 8717	258.3007 6808	268.2044 1035	278.5781 2507	158
159	242.0117 5060	260.8075 2256	270.8806 8791	281.4353 1257	159
160	244.2218 0936	263.3288 9977	273.5736 9221	284.3115 4799	160
161	246.4429 1840	265.8649 8502	276.2835 2779	287.2069 5831	161
162	248.6751 3300	268.4158 6410	279.0102 9983	290.1216 7136	162
163	250.9185 0866	270.9816 2331	281.7541 1421	293.0558 1584	163
164	253.1731 0121	273.5623 4944	284.5150 7742	296.0095 2128	164
165	255.4389 6671	276.1581 2982	287.2932 9666	298.9829 1809	165
166	257.7161 6154	278.7690 5224	290.0888 7976	301.9761 3754	166
167	260.0047 4235	281.3952 0504	292.9019 3526	304.9893 1179	167
168	262.3047 6606	284.0366 7707	295.7325 7235	308.0225 7387	168
169	264.6162 8989	286.6935 5769	298.5809 0093	311.0760 5770	169
170	266.9393 7134	289.3659 3678	301.4470 3156	314.1498 9808	170
171	269.2740 6820	292.0539 0474	304.3310 7551	317.2442 3073	171
172	271.6204 3854	294.7575 5252	307.2331 4473	320.3591 9227	172
173	273.9785 4073	297.4769 7158	310.1533 5189	323.4949 2022	173
174	276.3484 3344	300.2122 5391	313.0918 1033	326.6515 5302	174
175	278.7301 7561	302.9634 9206	316.0486 3415	329.8292 3004	175
176	281.1238 2648	305.7307 7910	319.0239 3811	333.0280 9158	176
177	283.5294 4562	308.5142 0864	322.0178 3773	336.2482 7885	177
178	285.9470 9284	311.3138 7486	325.0304 4921	339.4899 3405	178
179	288.3768 2831	314.1298 7246	328.0618 8952	342.7532 0027	179
180	290.8187 1245	316.9622 9672	331.1122 7633	346.0382 2161	180
181	293.2728 0601	319.8112 4345	334.1817 2806	349.3451 4309	181
182	295.7391 7004	322.6768 0904	337.2703 6386	352.6741 1071	182
183	298.2178 6589	325.5590 9042	340.3783 0363	356.0252 7144	183
184	300.7089 5522	328.4581 8512	343.5056 6803	359 3987 7325	184
185	303.2125 0000	331.3741 9120	346.6525 7845	362.7947 6508	185
186	305.7285 6250	334.3072 0731	349.8191 5707	366.2133 9684	186
187	308.2572 0531	337.2573 3269	353.0055 2680	369.6548 1949	187
188	310.7984 9134	340.2246 6713	356.2118 1134	373.1191 8495	188
189	313.3524 8379	343.2093 1102	359.4381 3516	376.6066 4618	189
190	315.9192 4621	346.2113 6533	362.6846 2351	380.1173 5716	190
191	318.4988 4244	349.2309 3163	365.9514 0241	383.6514 7287	191
192	321.0913 3666	352.2681 1207	369.2385 9867	387.2091 4936	192
193	323.6967 9334	355.3230 0939	372.5463 3991	390.7905 4369	193
194	326.3152 7731	358.3957 2694	375.8747 5454	394.3958 1398	194
195	328.9468 5369	361.4863 6868	379.2239 7175	398.0251 1941	195
196	331.5915 8796	364.5950 3917	382.5941 2158	401.6786 2020	196
197	334.2495 4590	367.7218 4356	385.9853 3484	405.3564 7767	197
198	336.9207 9363	370.8668 8765	389.3977 4318	409.0588 5419	198
199	339.6053 9760	374.0302 7783	392.8314 7907	412.7859 1322	199
200	342.3034 2459	377.2121 2111	396.2866 7582	416.5378 1930	200

$log\ s_{\overline{n}|}$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	2.351 6466	2.382 2978	2.397 8187	2.413 4685	151
152	2.355 7314	2.386 6106	2.402 2480	2.418 0161	152
153	2.359 7983	2.390 9058	2.406 6599	2.422 5464	153
154	2.363 8475	2.395 1836	2.411 0546	2.427 0596	154
155	2.367 8792	2.399 4442	2.415 4323	2.431 5560	155
156	2.371 8938	2.403 6880	2.419 7933	2.436 0360	156
157	2.375 8913	2.407 9150	2.424 1378	2.440 4996	157
158	2.379 8722	2.412 1257	2.428 4659	2.444 9470	158
159	2.383 8364	2.416 3201	2.432 7780	2.449 3786	159
160	2.387 7844	2.420 4985	2.437 0743	2.453 7945	160
161	2.391 7163	2.424 6611	2.441 3550	2.458 1950	161
162	2.395 6324	2.428 8082	2.445 6203	2.462 5802	162
163	2.399 5327	2.432 9398	2.449 8702	2.466 9503	163
164	2.403 4175	2.437 0563	2.454 1053	2.471 3057	164
165	2.407 2871	2.441 1578	2.458 3255	2.475 6464	165
166	2.411 1416	2.445 2445	2.462 5311	2.479 9726	166
167	2.414 9813	2.449 3167	2.466 7223	2.484 2846	167
168	2.418 8062	2.453 3744	2.470 8992	2.488 5825	168
169	2.422 6166	2.457 4179	2.475 0620	2.492 8666	169
170	2.426 4127	2.461 4474	2.479 2110	2.497 1370	170
171	2.430 1945	2.465 4630	2.483 3463	2.501 3937	171
172	2.433 9624	2.469 4649	2.487 4681	2.505 6372	172
173	2.437 7166	2.473 4534	2.491 5765	2.509 8675	173
174	2.441 4570	2.477 4284	2.495 6717	2.514 0848	174
175	2.445 1840	2.481 3903	2.499 7539	2.518 2892	175
176	2.448 8976	2.485 3392	2.503 8233	2.522 4809	176
177	2.452 5982	2.489 2751	2.507 8799	2.526 6601	177
178	2.456 2857	2.493 1985	2.511 9240	2.530 8269	178
179	2.459 9603	2.497 1092	2.515 9558	2.534 9815	179
180	2.463 6224	2.501 0077	2.519 9753	2.539 1241	180
181	2.467 2718	2.504 8937	2.523 9827	2.543 2547	181
182	2.470 9089	2.508 7677	2.527 9782	2.547 3736	182
183	2.474 5337	2.512 6298	2.531 9618	2.551 4808	183
184	2.478 1464	2.516 4801	2.535 9339	2.555 5766	184
185	2.481 7471	2.520 3187	2.539 8944	2.559 6610	185
186	2.485 3361	2.524 1458	2.543 8436	2.563 7342	186
187	2.488 9133	2.527 9614	2.547 7815	2.567 7964	187
188	2.492 4789	2.531 7658	2.551 7083	2.571 8475	188
189	2.496 0331	2.535 5590	2.555 6241	2.575 8879	189
190	2.499 5761	2.539 3413	2.559 5291	2.579 9177	190
191	2.503 1078	2.543 1127	2.563 4235	2.583 9369	191
192	2.506 6286	2.546 8734	2.567 3071	2.587 9456	192
193	2.510 1384	2.550 6234	2.571 1803	2.591 9440	193
194	2.513 6374	2.554 3628	2.575 0432	2.595 9323	194
195	2.517 1257	2.558 0919	2.578 8958	2.599 9105	195
196	2.520 6035	2.561 8108	2.582 7383	2.603 8787	196
197	2.524 0708	2.565 5195	2.586 5708	2.607 8371	197
198	2.527 5278	2.569 2181	2.590 3934	2.611 7858	198
199	2.530 9746	2.572 9067	2.594 2062	2.615 7249	199
200	2.534 4112	2.576 5856	2.598 0095	2.619 6544	200

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¾%	⅞%	1%	1⅛%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0075 0000	2.0087 5000	2.0100 0000	2.0112 5000	2
3	3.0225 5625	3.0263 2656	3.0301 0000	3.0338 7656	3
4	4.0452 2542	4.0528 0692	4.0604 0100	4.0680 0767	4
5	5.0755 6461	5.0882 6898	5.1010 0501	5.1137 7276	5
6	6.1136 3135	6.1327 9133	6.1520 1506	6.1713 0270	6
7	7.1594 8358	7.1864 5326	7.2135 3521	7.2407 2986	7
8	8.2131 7971	8.2493 3472	8.2856 7056	8.3221 8807	8
9	9.2747 7856	9.3215 1640	9.3685 2727	9.4158 1269	9
10	10.3443 3940	10.4030 7967	10.4622 1254	10.5217 4058	10
11	11.4219 2194	11.4941 0662	11.5668 3467	11.6401 1016	11
12	12.5075 8636	12.5946 8005	12.6825 0301	12.7710 6140	12
13	13.6013 9325	13.7048 8350	13.8093 2804	13.9147 3584	13
14	14.7034 0370	14.8248 0123	14.9474 2132	15.0712 7662	14
15	15.8136 7923	15.9545 1824	16.0968 9554	16.2408 2848	15
16	16.9322 8183	17.0941 2028	17.2578 6449	17.4235 3780	16
17	18.0592 7394	18.2436 9383	18.4304 4314	18.6195 5260	17
18	19.1947 1849	19.4033 2615	19.6147 4757	19.8290 2257	18
19	20.3386 7888	20.5731 0526	20.8108 9504	21.0520 9907	19
20	21.4912 1897	21.7531 1993	22.0190 0399	22.2889 3519	20
21	22.6524 0312	22.9434 5973	23.2391 9403	23.5396 8571	21
22	23.8222 9614	24.1442 1500	24.4715 8598	24.8045 0717	22
23	25.0009 6336	25.3554 7688	25.7163 0183	26.0835 5788	23
24	26.1884 7059	26.5773 3730	26.9734 6485	27.3769 9790	24
25	27.3848 8412	27.8098 8900	28.2431 9950	28.6849 8913	25
26	28.5902 7075	29.0532 2553	29.5256 3150	30.0076 9526	26
27	29.8046 9778	30.3074 4126	30.8208 8781	31.3452 8183	27
28	31.0282 3301	31.5726 3137	32.1290 9669	32.6979 1625	28
29	32.2609 4476	32.8488 9189	33.4503 8766	34.0657 6781	29
30	33.5029 0184	34.1363 1970	34.7848 9153	35.4490 0769	30
31	34.7541 7361	35.4350 1249	36.1327 4045	36.8478 0903	31
32	36.0148 2991	36.7450 6885	37.4940 6785	38.2623 4688	32
33	37.2849 4113	38.0665 8820	38.8690 0853	39.6927 9829	33
34	38.5645 7819	39.3996 7085	40.2576 9862	41.1393 4227	34
35	39.8538 1253	40.7444 1797	41.6602 7560	42.6021 5987	35
36	41.1527 1612	42.1009 3163	43.0768 7836	44.0814 3417	36
37	42.4613 6149	43.4693 1478	44.5076 4714	45.5773 5030	37
38	43.7798 2170	44.8496 7128	45.9527 2361	47.0900 9549	38
39	45.1081 7037	46.2421 0591	47.4122 5085	48.6198 5906	39
40	46.4464 8164	47.6467 2433	48.8863 7336	50.1668 3248	40
41	47.7948 3026	49.0636 3317	50.3752 3709	51.7312 0934	41
42	49.1532 9148	50.4929 3996	51.8789 8946	53.3131 8545	42
43	50.5219 4117	51.9347 5319	53.3977 7936	54.9129 5879	43
44	51.9008 5573	53.3891 8228	54.9317 5715	56.5307 2957	44
45	53.2901 1215	54.8563 3762	56.4810 7472	58.1667 0028	45
46	54.6897 8799	56.3363 3058	58.0458 8547	59.8210 7566	46
47	56.0999 6140	57.8292 7347	59.6263 4432	61.4940 6276	47
48	57.5207 1111	59.3352 7961	61.2226 0777	63.1858 7097	48
49	58.9521 1644	60.8544 6331	62.8348 3385	64.8967 1201	49
50	60.3942 5732	62.3869 3986	64.4631 8218	66.6268 0002	50

Logarithm of Amount of 1 per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	¾%	⅞%	1%	1⅛%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.302 6556	0.302 9258	0.303 1961	0.303 4661	2
3	0.480 3744	0.480 9158	0.481 4570	0.481 9979	3
4	0.606 9427	0.607 7559	0.608 5689	0.609 3817	4
5	0.705 4844	0.706 5701	0.707 6557	0.708 7414	5
6	0.786 2992	0.787 6582	0.789 0173	0.790 3769	6
7	0.854 8817	0.856 5146	0.858 1481	0.859 7824	7
8	0.914 5113	0.916 4189	0.918 3277	0.920 2375	8
9	0.967 3036	0.969 4866	0.971 6713	0.973 8578	9
10	1.014 7027	1.017 1620	1.019 6234	1.022 0876	10
11	1.057 7392	1.060 4752	1.063 2145	1.065 9571	11
12	1.097 1735	1.100 1872	1.103 2049	1.106 2270	12
13	1.133 5834	1.136 8753	1.140 1725	1.143 4750	13
14	1.167 4179	1.170 9889	1.174 5662	1.178 1501	14
15	1.199 0329	1.202 8837	1.206 7422	1.210 6082	15
16	1.228 7155	1.232 8467	1.236 9870	1.241 1363	16
17	1.256 7003	1.261 1128	1.265 5356	1.269 9694	17
18	1.283 1817	1.287 8762	1.292 5827	1.297 3013	18
19	1.308 3227	1.313 2998	1.318 2908	1.323 2954	19
20	1.332 2610	1.337 5216	1.342 7976	1.348 0893	20
21	1.355 1143	1.360 6589	1.366 2209	1.371 8007	21
22	1.376 9836	1.382 8131	1.388 6622	1.394 5306	22
23	1.397 9568	1.404 0718	1.410 2084	1.416 3668	23
24	1.418 1101	1.424 5115	1.430 9367	1.437 3858	24
25	1.437 5109	1.444 1993	1.450 9138	1.457 6547	25
26	1.456 2183	1.463 1944	1.470 1991	1.477 2327	26
27	1.474 2847	1.481 5492	1.488 8451	1.496 1722	27
28	1.491 7571	1.499 3107	1.506 8985	1.514 5201	28
29	1.508 6771	1.516 5208	1.524 4012	1.532 3182	29
30	1.525 0824	1.533 2167	1.541 3906	1.549 6040	30
31	1.541 0070	1.549 4325	1.557 9008	1.566 4116	31
32	1.556 4814	1.565 1991	1.573 9626	1.582 7716	32
33	1.571 5334	1.580 5440	1.589 6035	1.598 7117	33
34	1.586 1886	1.595 4926	1.604 8489	1.614 2573	34
35	1.600 4699	1.610 0681	1.619 7222	1.629 4316	35
36	1.614 3985	1.624 2917	1.634 2442	1.644 2557	36
37	1.627 9939	1.638 1827	1.648 4346	1.658 7491	37
38	1.641 2740	1.651 7592	1.662 3112	1.672 9296	38
39	1.654 2552	1.665 0376	1.675 8905	1.686 8137	39
40	1.666 9528	1.678 0331	1.689 1878	1.700 4167	40
41	1.679 3810	1.690 7597	1.702 2171	1.713 7527	41
42	1.691 5526	1.703 2307	1.714 9915	1.726 8346	42
43	1.703 4800	1.715 4580	1.727 5232	1.739 6749	43
44	1.715 1745	1.727 4533	1.739 8235	1.752 2846	44
45	1.726 6466	1.739 2268	1.751 9029	1.764 6744	45
46	1.737 9062	1.750 7885	1.763 7714	1.776 8542	46
47	1.748 9626	1.762 1477	1.775 4381	1.788 8331	47
48	1.759 8242	1.773 3130	1.786 9118	1.800 6200	48
49	1.770 4994	1.784 2924	1.798 2004	1.812 2227	49
50	1.780 9957	1.795 0937	1.809 3117	1.823 6490	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¾%	⅞%	1%	1⅛%	n
51	61.8472 1424	63.9328 2559	66.1078 1401	68.3763 5152	51
52	63.3110 6835	65.4922 3781	67.7688 9215	70.1455 8548	52
53	64.7859 0136	67.0652 9489	69.4465 8107	71.9347 2332	53
54	66.2717 9562	68.6521 1622	71.1410 4688	73.7439 8895	54
55	67.7688 3409	70.2528 2224	72.8524 5735	75.5736 0883	55
56	69.2771 0035	71.8675 3443	74.5809 8192	77.4238 1193	56
57	70.7966 7860	73.4963 7536	76.3267 9174	79.2948 2981	57
58	72.3276 5369	75.1394 6864	78.0900 5966	81.1868 9665	58
59	73.8701 1109	76.7969 3900	79.8709 6025	83.1002 4923	59
60	75.4241 3693	78.4689 1221	81.6696 6986	85.0351 2704	60
61	76.9898 1795	80.1555 1519	83.4863 6655	86.9917 7222	61
62	78.5672 4159	81.8568 7595	85.3212 3022	88.9704 2966	62
63	80.1564 9590	83.5731 2362	87.1744 4252	90.9713 4699	63
64	81.7576 6962	85.3043 8845	89.0461 8695	92.9947 7464	64
65	83.3708 5214	87.0508 0185	90.9366 4882	95.0409 6586	65
66	84.9961 3353	88.8124 9636	92.8460 1531	97.1101 7672	66
67	86.6336 0453	90.5896 0571	94.7744 7546	99.2026 6621	67
68	88.2833 5657	92.3822 6476	96.7222 2021	101.3186 9621	68
69	89.9454 8174	94.1906 0957	98.6894 4242	103.4585 3154	69
70	91.6200 7285	96.0147 7741	100.6763 3684	105.6224 4002	70
71	93.3072 2340	97.8549 0671	102.6831 0021	107.8106 9247	71
72	95.0070 2758	99.7111 3714	104.7099 3121	110.0235 6276	72
73	96.7195 8028	101.5836 0959	106.7570 3052	112.2613 2784	73
74	98.4449 7714	103.4724 6618	108.8246 0083	114.5242 6778	74
75	100.1833 1446	105.3778 5025	110.9128 4684	116.8126 6579	75
76	101.9346 8932	107.2999 0644	113.0219 7530	119.1268 0828	76
77	103.6991 9949	109.2387 8063	115.1521 9506	121.4669 8487	77
78	105.4769 4349	111.1946 1996	117.3037 1701	123.8334 8845	78
79	107.2680 2056	113.1675 7288	119.4767 5418	126.2266 1520	79
80	109.0725 3072	115.1577 8914	121.6715 2172	128.6466 6462	80
81	110.8905 7470	117.1654 1980	123.8882 3694	131.0939 3960	81
82	112.7222 5401	119.1906 1722	126.1271 1931	133.5687 4642	82
83	114.5676 7091	121.2335 3512	128.3883 9050	136.0713 9481	83
84	116.4269 2845	123.2943 2855	130.6722 7440	138.6021 9801	84
85	118.3001 3041	125.3731 5393	132.9789 9715	141.1614 7273	85
86	120.1873 8139	127.4701 6903	135.3087 8712	143.7495 3930	86
87	122.0887 8675	129.5855 3301	137.6618 7499	146.3667 2162	87
88	124.0044 5265	131.7194 0642	140.0384 9374	149.0133 4724	88
89	125.9344 8604	133.8719 5123	142.4388 7868	151.6897 4739	89
90	127.8789 9469	136.0433 3080	144.8632 6746	154.3962 5705	90
91	129.8380 8715	138.2337 0994	147.3119 0014	157.1332 1494	91
92	131.8118 7280	140.4432 5491	149.7850 1914	159.9009 6361	92
93	133.8004 6185	142.6721 3339	152.2828 6933	162.6998 4945	93
94	135.8039 6531	144.9205 1455	154.8056 9803	165.5302 2276	94
95	137.8224 9505	147.1885 6906	157.3537 5501	168.3924 3776	95
96	139.8561 6377	149.4764 6903	159.9272 9256	171.2868 5269	96
97	141.9050 8499	151.7843 8813	162.5265 6548	174.2138 2978	97
98	143.9693 7313	154.1125 0153	165.1518 3114	177.1737 3537	98
99	146.0491 4343	156.4609 8592	167.8033 4945	180.1669 3989	99
100	148.1445 1201	158.8300 1955	170.4813 8294	183.1938 1796	100

Logarithm of Amount of 1 per Annum at Compound Interest

$\log s_{\overline{n}|}$

n	¾%	⅞%	1%	1⅛%	n
51	1.791 3201	1.805 7239	1.820 2527	1.834 9059	51
52	1.801 4797	1.816 1899	1.831 0303	1.846 0003	52
53	1.811 4805	1.826 4978	1.841 6508	1.856 9385	53
54	1.821 3288	1.836 6539	1.852 1203	1.867 7266	54
55	1.831 0300	1.846 6638	1.862 4442	1.878 3702	55
56	1.840 5897	1.856 5328	1.872 6280	1.888 8745	56
57	1.850 0129	1.866 2659	1.882 6770	1.899 2449	57
58	1.859 3044	1.875 8681	1.892 5957	1.909 4859	58
59	1.868 4688	1.885 3440	1.902 3888	1.919 6023	59
60	1.877 5104	1.894 6976	1.912 0608	1.929 5983	60
61	1.886 4333	1.903 9334	1.921 6156	1.939 4782	61
62	1.895 2415	1.913 0551	1.931 0570	1.949 2457	62
63	1.903 9387	1.922 0666	1.940 3892	1.958 9046	63
64	1.912 5285	1.930 9714	1.949 6153	1.968 4585	64
65	1.921 0142	1.939 7728	1.958 7389	1.977 9108	65
66	1.929 3992	1.948 4741	1.967 7632	1.987 2648	66
67	1.937 6864	1.957 0784	1.976 6914	1.996 5233	67
68	1.945 8789	1.965 5886	1.985 5262	2.005 6896	68
69	1.953 9794	1.974 0076	1.994 2706	2.014 7663	69
70	1.961 9906	1.982 3381	2.002 9272	2.023 7562	70
71	1.969 9152	1.990 5826	2.011 4990	2.032 6618	71
72	1.977 7557	1.998 7437	2.019 9877	2.041 4857	72
73	1.985 5144	2.006 8236	2.028 3964	2.050 2301	73
74	1.993 1936	2.014 8248	2.036 7270	2.058 8975	74
75	2.000 7954	2.022 7493	2.044 9818	2.067 4899	75
76	2.008 3220	2.030 5993	2.053 1629	2.076 0095	76
77	2.015 7754	2.038 3768	2.061 2722	2.084 4582	77
78	2.023 1575	2.046 0838	2.069 3117	2.092 8381	78
79	2.030 4703	2.053 7220	2.077 2836	2.101 1510	79
80	2.037 7154	2.061 2933	2.085 1888	2.109 3985	80
81	2.044 8946	2.068 7995	2.093 0300	2.117 5826	81
82	2.052 0097	2.076 2421	2.100 8084	2.125 7048	82
83	2.059 0621	2.083 6228	2.108 5257	2.133 7668	83
84	2.066 0534	2.090 9431	2.116 1835	2.141 7701	84
85	2.072 9852	2.098 2045	2.123 7830	2.149 7161	85
86	2.079 8588	2.105 4086	2.131 3260	2.157 6065	86
87	2.086 6758	2.112 5565	2.138 8137	2.165 4424	87
88	2.093 4373	2.119 6498	2.146 2474	2.173 2252	88
89	2.100 1447	2.126 6896	2.153 6286	2.180 9563	89
90	2.106 7992	2.133 6772	2.160 9584	2.188 6368	90
91	2.113 4021	2.140 6139	2.168 2378	2.196 2680	91
92	2.119 9546	2.147 5008	2.175 4683	2.203 8511	92
93	2.126 4576	2.154 3392	2.182 6511	2.211 3872	93
94	2.132 9125	2.161 1298	2.189 7869	2.218 8773	94
95	2.139 3201	2.167 8741	2.196 8771	2.226 3226	95
96	2.145 6816	2.174 5728	2.203 9226	2.233 7240	96
97	2.151 9979	2.181 2271	2.210 9244	2.241 0826	97
98	2.158 2701	2.187 8378	2.217 8833	2.248 3994	98
99	2.164 4990	2.194 4061	2.224 8005	2.255 6751	99
100	2.170 6856	2.200 9326	2.231 6769	2.262 9109	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¾%	⅞%	1%	1⅛%	n
101	150.2555 9585	161 2197 8222	173.1861 9677	186.2547 4842	101
102	152.3825 1281	163.6304 5532	175.9180 5874	189.3501 1434	102
103	154.5253 8166	166.0622 2180	178.6772 3933	192.4803 0312	103
104	156.6843 2202	168.5122 6624	181.4640 1172	195.6457 0653	104
105	158.8594 5444	170.9897 7482	184.2786 5184	198.8467 2073	105
106	161.0509 0035	173.4859 3535	187.1214 3836	202.0837 4634	106
107	163.2587 8210	176.0039 3728	189.9926 5274	205.3571 8849	107
108	165.4832 2296	178.5439 7174	192.8925 7927	208.6674 5686	108
109	167.7243 4714	181.1062 3149	195.8215 0506	212.0149 6575	109
110	169.9822 7974	183.6909 1101	198.7797 2011	215.4001 3411	110
111	172.2571 4684	186.2982 0648	201.7675 1731	218.8233 8562	111
112	174.5490 7544	188.9283 1579	204.7851 9248	222.2851 4871	112
113	176.8581 9351	191.5814 3855	207.8330 4441	225.7858 5663	113
114	179.1846 2996	194.2577 7614	210.9113 7485	229.3259 4752	114
115	181.5285 1468	196.9575 3168	214.0204 8860	232.9058 6443	115
116	183.8899 7854	199.6809 1009	217.1606 9349	236.5260 5540	116
117	186.2691 5338	202.4281 1805	220.3323 0042	240.1869 7352	117
118	188.6661 7203	205.1993 6408	223.5356 2343	243.8890 7698	118
119	191.0811 6832	207.9948 5852	226.7709 7966	247.6328 2909	119
120	193.5142 7708	210.8148 1353	230.0386 8946	251.4186 9842	120
121	195.9656 3416	213.6594 4315	233.3390 7635	255.2471 5878	121
122	198.4353 7642	216.5289 6328	236.6724 6712	259.1186 8931	122
123	200.9236 4174	219.4235 9170	240.0391 9179	263.0337 7457	123
124	203.4305 6905	222.3435 4813	243.4395 8370	266.9929 0453	124
125	205.9562 9832	225.2890 5418	246.8739 7954	270.9965 7471	125
126	208.5009 7056	228.2603 3340	250.3427 1934	275.0452 8617	126
127	211.0647 2784	231.2576 1132	253.8461 4653	279.1395 4564	127
128	213.6477 1330	234.2811 1542	257.3846 0800	283.2798 6553	128
129	216.2500 7115	237.3310 7518	260.9584 5408	287.4667 6402	129
130	218.8719 4668	240.4077 2209	264.5680 3862	291.7007 6511	130
131	221.5134 8628	243.5112 8965	268.2137 1900	295.9823 9872	131
132	224.1748 3743	246.6420 1344	271.8958 5619	300.3122 0071	132
133	226.8561 4871	249.8001 3106	275.6148 1475	304.6907 1296	133
134	229.5575 6982	252.9858 8220	279.3709 6290	309.1184 8349	134
135	232.2792 5160	256.1995 0867	283.1646 7253	313.5960 6643	135
136	235.0213 4598	259.4412 5437	286.9963 1926	318.1240 2217	136
137	237.7840 0608	262.7113 6535	290.8662 8245	322.7029 1742	137
138	240.5673 8612	266.0100 8980	294.7749 4527	327.3333 2524	138
139	243.3716 4152	269.3376 7808	298.7226 9473	332.0158 2515	139
140	246.1969 2883	272.6943 8276	302.7099 2167	336.7510 0318	140
141	249.0434 0580	276.0804 5861	306.7370 2089	341.5394 5197	141
142	251.9112 3134	279.4961 6263	310.8043 9110	346.3817 7081	142
143	254.8005 6558	282.9417 5405	314.9124 3501	351.2785 6573	143
144	257.7115 6982	286.4174 9440	319.0615 5936	356.2304 4959	144
145	260.6444 0659	289.9236 4747	323.2521 7495	361.2380 4215	145
146	263.5992 3964	293.4604 7939	327.4846 9670	366.3019 7012	146
147	266.5762 3394	297.0282 5858	331.7595 4367	371.4228 6729	147
148	269.5755 5569	300.6272 5585	336.0771 3911	376.6013 7454	148
149	272.5973 7236	304.2577 4433	340.4379 1050	381.8381 4001	149
150	275.6418 5265	307.9199 9960	344.8422 8960	387.1338 1908	150

Logarithm of Amount of 1 per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
101	2.176 8307	2.207 4183	2.238 5133	2.270 1074	101
102	2.182 9352	2.213 8614	2.245 3104	2.277 2656	102
103	2.188 9998	2.220 2708	2.252 0692	2.284 3863	103
104	2.195 0256	2.226 6393	2.258 7905	2.291 4704	104
105	2.201 0131	2.232 9701	2.265 4750	2.298 5184	105
106	2.206 9631	2.239 2642	2.272 1235	2.305 5314	106
107	2.212 8766	2.245 5224	2.278 7368	2.312 5099	107
108	2.218 7540	2.251 7452	2.285 3155	2.319 4547	108
109	2.224 5961	2.257 9334	2.291 8604	2.326 3665	109
110	2.230 4036	2.264 0877	2.298 3721	2.333 2460	110
111	2.236 1772	2.270 2087	2.304 8513	2.340 0937	111
112	2.241 9176	2.276 2970	2.311 2985	2.346 9104	112
113	2.247 6252	2.282 3535	2.317 7146	2.353 6968	113
114	2.253 3008	2.288 3784	2.324 1000	2.360 4532	114
115	2.258 9448	2.294 3726	2.330 4554	2.367 1804	115
116	2.264 5580	2.300 3366	2.336 7812	2.373 8790	116
117	2.270 1409	2.306 2709	2.343 0781	2.380 5494	117
118	2.275 6940	2.312 1760	2.349 3467	2.387 1924	118
119	2.281 2179	2.318 0526	2.355 5875	2.393 8083	119
120	2.286 7130	2.323 9011	2.361 8009	2.400 3976	120
121	2.292 1799	2.329 7221	2.367 9875	2.406 9609	121
122	2.297 6191	2.335 5160	2.374 1477	2.413 4987	122
123	2.303 0311	2.341 2833	2.380 2821	2.420 0115	123
124	2.308 4162	2.347 0245	2.386 3912	2.426 4997	124
125	2.313 7751	2.352 7401	2.392 4753	2.432 9638	125
126	2.319 1081	2.358 4304	2.389 5349	2.439 4042	126
127	2.324 4156	2.364 0960	2.404 5706	2.445 8214	127
128	2.329 6983	2.369 7373	2.410 5826	2.452 2157	128
129	2.334 9562	2.375 3546	2.416 5713	2.458 5876	129
130	2.340 1901	2.380 9484	2.422 5374	2.464 9375	130
131	2.345 4001	2.386 5191	2.428 4810	2.471 2659	131
132	2.350 5869	2.392 0670	2.434 4026	2.477 5730	132
133	2.355 7505	2.397 5926	2.440 2026	2.483 8592	133
134	2.360 8916	2.403 0963	2.446 1813	2.490 1250	134
135	2.366 0104	2.408 5783	2.452 0390	2.496 3706	135
136	2.371 1073	2.414 0390	2.457 8763	2.502 5965	136
137	2.376 1826	2.419 4789	2.463 6934	2.508 8029	137
138	2.381 2368	2.424 8981	2.469 4906	2.514 9902	138
139	2.386 2699	2.430 2971	2.475 2682	2.521 1588	139
140	2.391 2826	2.435 6762	2.481 0267	2.527 3089	140
141	2.396 2750	2.441 0356	2.486 7662	2.533 4409	141
142	2.401 2475	2.446 3758	2.492 4871	2.539 5550	142
143	2.406 2004	2.451 6970	2.498 1898	2.545 6516	143
144	2.411 1339	2.456 9995	2.503 8745	2.551 7311	144
145	2.416 0484	2.462 2837	2.509 5414	2.557 7934	145
146	2.420 9441	2.467 5496	2.515 1910	2.563 8392	146
147	2.425 8215	2.472 7978	2.520 8234	2.569 8686	147
148	2.430 6806	2.478 0284	2.526 4390	2.575 8819	148
149	2.435 5217	2.483 2417	2.532 0379	2.581 8793	149
150	2.440 3451	2.488 4379	2.537 6205	2.587 8611	150

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	¾%	⅞%	1%	1⅛%	n
151	278.7091 6655	311.6142 9959	349.2907 1250	392.4890 7455	151
152	281.7994 8530	315.3409 2472	353.7836 1962	397.9045 7664	152
153	284.9129 8144	319.1001 5781	358.3214 5582	403.3810 0312	153
154	288.0498 2880	322.8922 8419	362.9046 7038	408.9190 3941	154
155	291.2102 0251	326.7175 9167	367.5337 1708	414.5193 7860	155
156	294.3942 7903	330.5763 7060	372.2090 5425	420.1827 2161	156
157	297.6022 3613	334.4689 1384	376.9311 4480	425.9097 7723	157
158	300.8342 5290	338.3955 1684	381.7004 5624	431.7012 6222	158
159	304.0905 0979	342.3564 7761	386.5174 6081	437.5579 0142	159
160	307.3711 8862	346.3520 9679	391.3826 3541	443.4804 2781	160
161	310.6764 7253	350.3826 7764	396.2964 6177	449.4695 8263	161
162	314.0065 4608	354.4485 2607	401.2594 2639	455.5261 1543	162
163	317.3615 9517	358.5499 5067	406.2720 2065	461.6507 8423	163
164	320.7418 0714	362.6872 6274	411.3347 4086	467.8443 5555	164
165	324.1473 7069	366.8607 7629	416.4480 8826	474.1076 0455	165
166	327.5784 7597	371.0708 0808	421.6125 6915	480.4413 1510	166
167	331.0353 1454	375.3176 7765	426.8286 9484	486.8462 7990	167
168	334.5180 7940	379.6017 0733	432.0969 8179	493.3233 0055	168
169	338.0269 6499	383.9232 2227	437.4179 5161	499.8731 8768	169
170	341.5621 6723	388.2825 5046	442.7921 3112	506.4967 6104	170
171	345.1238 8349	392.6800 2278	448.2200 5243	513.1948 4960	171
172	348.7123 1261	397.1159 7298	453.7022 5296	519.9682 9166	172
173	352.3276 5496	401.5907 3774	459.2392 7549	526.8179 3494	173
174	355.9701 1237	406.1046 5670	464.8316 6824	533.7446 3671	174
175	359.6398 8821	410.6580 7245	470.4799 8492	540.7492 6387	175
176	363.3371 8737	415.2513 3058	476.1847 8477	547.8326 9309	176
177	367.0622 1628	419.8847 7972	481.9466 3262	554.9958 1089	177
178	370.8151 8290	424.5587 7154	487.7660 9895	562.2395 1376	178
179	374.5962 9677	429.2736 6080	493.6437 5994	569.5647 0829	179
180	378.4057 6900	434.0298 0533	499.5801 9754	576.9723 1126	180
181	382.2438 1226	438.8275 6612	505.5759 9951	584.4632 4976	181
182	386.1106 4086	443.6673 0733	511.6317 5951	592.0384 6132	182
183	390.0064 7066	448.5493 9627	517.7480 7710	599.6988 9401	183
184	393.9315 1919	453.4742 0348	523.9255 5787	607.4455 0657	184
185	397.8860 0559	458.4421 0276	530.1648 1345	615.2792 6852	185
186	401.8701 5063	463.4534 7116	536.4664 6159	623.2011 6029	186
187	405.8841 7676	468.5086 8904	542.8311 2620	631.2121 7334	187
188	409.9283 0808	473.6081 4007	549.2594 3746	639.3133 1029	188
189	414.0027 7039	478.7522 1129	555.7520 3184	647.5055 8503	189
190	418.1077 9117	483.9412 9314	562.3095 5216	655.7900 2286	190
191	422.2435 9961	489.1757 7946	568.9326 4768	664.1676 6062	191
192	426.4104 2660	494.4560 6753	575.6219 7415	672.6395 4680	192
193	430.6085 0480	499.7825 5812	582.3781 9390	681.2067 4170	193
194	434.8380 6859	505.1556 5550	589.2019 7584	689.8703 1755	194
195	439.0993 5410	510.5757 6749	596.0939 9559	698.6313 5862	195
196	443.3925 9926	516.0433 0545	603.0549 3555	707.4909 6140	196
197	447.7180 4375	521.5586 8437	610.0854 8490	716.4502 3472	197
198	452.0759 2908	527.1223 2286	617.1863 3975	725.5102 9986	198
199	456.4664 9855	532.7346 4319	624.3582 0315	734.6722 9073	199
200	460.8899 9729	538.3960 7131	631.6017 8518	743.9373 5401	200

$log\ s_{\overline{n}|}$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	2.445 1513	2.493 6174	2.543 1871	2.593 8276	151
152	2.449 9402	2.498 7804	2.548 7377	2.599 7789	152
153	2.454 7122	2.503 9270	2.554 2728	2.605 7155	153
154	2.459 4676	2.509 0577	2.559 7926	2.611 6374	154
155	2.464 2066	2.514 1725	2.565 2972	2.617 5448	155
156	2.468 9294	2.519 2718	2.570 7869	2.623 4382	156
157	2.473 6362	2.524 3558	2.576 2620	2.629 3176	157
158	2.478 3273	2.529 4246	2.581 7227	2.635 1833	158
159	2.483 0028	2.534 4785	2.587 1691	2.641 0355	159
160	2.487 6632	2.539 5178	2.592 6015	2.646 8744	160
161	2.492 3084	2.544 5426	2.598 0202	2.652 7003	161
162	2.496 9387	2.549 5532	2.603 4253	2.658 5133	162
163	2.501 5544	2.554 5496	2.608 8169	2.664 3135	163
164	2.506 1556	2.559 5323	2.614 1954	2.670 1014	164
165	2.510 7425	2.564 5013	2.619 5609	2.675 8769	165
166	2.515 3154	2.569 4567	2.624 9135	2.681 6404	166
167	2.519 8744	2.574 3990	2.630 2536	2.687 3919	167
168	2.524 4196	2.579 3281	2.635 5812	2.693 1316	168
169	2.528 9513	2.584 2443	2.640 8966	2.698 8599	169
170	2.533 4698	2.589 1479	2.646 1999	2.704 5766	170
171	2.537 9750	2.594 0388	2.651 4913	2.710 2823	171
172	2.542 4673	2.598 9174	2.656 7710	2.715 9769	172
173	2.546 9467	2.603 7837	2.662 0390	2.721 6606	173
174	2.551 4135	2.608 6380	2.667 2957	2.727 3336	174
175	2.555 8679	2.613 4804	2.672 5412	2.732 9959	175
176	2.560 3099	2.618 3110	2.677 7755	2.738 6479	176
177	2.564 7397	2.623 1301	2.682 9990	2.744 2897	177
178	2.569 1575	2.627 9378	2.688 2116	2.749 9213	178
179	2.573 5635	2.632 7342	2.693 4136	2.755 5431	179
180	2.577 9577	2.637 5195	2.698 6052	2.761 1550	180
181	2.582 3404	2.642 2939	2.703 7865	2.766 7572	181
182	2.586 7117	2.647 0575	2.708 9575	2.772 3499	182
183	2.591 0718	2.651 8103	2.714 1185	2.777 9332	183
184	2.595 4208	2.656 5526	2.719 2696	2.783 5073	184
185	2.599 7586	2.661 2845	2.724 4109	2.789 0723	185
186	2.604 0858	2.666 0062	2.729 5425	2.794 6282	186
187	2.608 4022	2.670 7177	2.734 6647	2.800 1754	187
188	2.612 7079	2.675 4192	2.739 7775	2.805 7138	188
189	2.617 0032	2.680 1108	2.744 8811	2.811 2435	189
190	2.621 2883	2.684 7927	2.749 9755	2.816 7648	190
191	2.625 5631	2.689 4649	2.755 0608	2.822 2778	191
192	2.629 8278	2.694 1277	2.760 1374	2.827 7824	192
193	2.634 0826	2.698 7811	2.765 2051	2.833 2789	193
194	2.638 3276	2.703 4253	2.770 2642	2.838 7675	194
195	2.642 5628	2.708 0602	2.775 3147	2.844 2480	195
196	2.646 7884	2.712 6862	2.780 3569	2.849 7209	196
197	2.651 0046	2.717 3032	2.785 3907	2.855 1860	197
198	2.655 2114	2.721 9114	2.790 4163	2.860 6436	198
199	2.659 4089	2.726 5110	2.795 4338	2.866 0937	199
200	2.633 5973	2.731 1019	2.800 4433	2.871 5364	200

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0125 0000	2.0137 5000	2.0150 0000	2.0175 0000	2
3	3.0376 5625	3.0414 3906	3.0452 2500	3.0528 0625	3
4	4.0756 2695	4.0832 5885	4.0909 0338	4.1062 3036	4
5	5.1265 7229	5.1394 0366	5.1522 6693	5.1780 8938	5
6	6.1906 5444	6.2100 7046	6.2295 5093	6.2687 0596	6
7	7.2680 3762	7.2954 5893	7.3229 9419	7.3784 0831	7
8	8.3588 8809	8.3957 7149	8.4328 3911	8.5075 3045	8
9	9.4633 7420	9.5112 1335	9.5593 3169	9.6564 1224	9
10	10.5816 6637	10.6419 9253	10.7027 2167	10.8253 9945	10
11	11.7139 3720	11.7883 1993	11.8632 6249	12.0148 4394	11
12	12.8603 6142	12.9504 0933	13.0412 1143	13.2251 0371	12
13	14.0211 1594	14.1284 7745	14.2368 2960	14.4565 4303	13
14	15.1963 7988	15.3227 4402	15.4503 8205	15.7095 3253	14
15	16.3863 3463	16.5334 3175	16.6821 3778	16.9844 4935	15
16	17.5911 6382	17.7607 6644	17.9323 6984	18.2816 7721	16
17	18.8110 5336	19.0049 7697	19.2013 5539	19.6016 0656	17
18	20.0461 9153	20.2662 9541	20.4893 7572	20.9446 3468	18
19	21.2967 6893	21.5449 5697	21.7967 1636	22.3111 6578	19
20	22.5629 7854	22.8412 0013	23.1236 6710	23.7016 1119	20
21	23.8450 1577	24.1552 6663	24.4705 2211	25.1163 8938	21
22	25.1430 7847	25.4874 0155	25.8375 7994	26.5559 2620	22
23	26.4573 6695	26.8378 5332	27.2251 4364	28.0206 5490	23
24	27.7880 8403	28.2068 7380	28.6335 2080	29.5110 1637	24
25	29.1354 3508	29.5947 1832	30.0630 2361	31.0274 5915	25
26	30.4996 2802	31.0016 4569	31.5139 6896	32.5704 3969	26
27	31.8808 7337	32.4279 1832	32.9866 7850	34.1404 2238	27
28	33.2793 8429	33.8738 0220	34.4814 7867	35.7378 7977	28
29	34.6953 7659	35.3395 6698	35.9987 0085	37.3632 9267	29
30	36.1290 6880	36.8254 8602	37.5386 8137	39.0171 5029	30
31	37.5806 8216	38.3318 3646	39.1017 6159	40.6999 5042	31
32	39.0504 4069	39.8588 9921	40.6882 8801	42.4121 9955	32
33	40.5385 7120	41.4069 5907	42.2986 1233	44.1544 1305	33
34	42.0453 0334	42.9763 0476	43.9330 9152	45.9271 1527	34
35	43.5708 6963	44.5672 2895	45.5920 8789	47.7308 3979	35
36	45.1155 0550	46.1800 2835	47.2759 6921	49.5661 2949	36
37	46.6794 4932	47.8150 0374	48.9851 0874	51.4335 3675	37
38	48.2926 4243	49.4724 6004	50.7198 8538	53.3336 2365	38
39	49.8862 2921	51.1527 0636	52.4806 8366	55.2669 6206	39
40	51.4895 5708	52.8560 5608	54.2678 9391	57.2341 3390	40
41	53.1331 7654	54.5828 2685	56.0819 1232	59.2357 3124	41
42	54.7973 4125	56.3333 4072	57.9231 4100	61.2723 5654	42
43	56.4823 0801	58.1079 2415	59.7919 8812	63.3446 2278	43
44	58.1883 3687	59.9069 0811	61.6888 6794	65.4531 5367	44
45	59.9156 9108	61.7306 2810	63.6142 0096	67.5985 8386	45
46	61.6646 3721	63.5794 2423	65.5684 1398	69.7815 5908	46
47	63.4354 4518	65.4536 4131	67.5519 4018	72.0027 3637	47
48	65.2283 8824	67.3536 2888	69.5652 1929	74.2627 8425	48
49	67.0437 4310	69.2797 4128	71.6086 9758	76.5623 8298	49
50	68.8817 8989	71.2323 3772	73.6828 2804	78.9022 2468	50

Logarithm of Amount of 1 per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.303 7359	0.304 0055	0.304 2751	0.304 8135	2
3	0.482 5386	0.483 0791	0.483 6194	0.484 6993	3
4	0.610 1944	0.611 0069	0.611 8193	0.613 4433	4
5	0.709 8270	0.710 9127	0.711 9983	0.714 1695	5
6	0.791 7365	0.793 0965	0.794 4568	0.797 1779	6
7	0.861 4171	0.863 0526	0.864 6887	0.867 9627	7
8	0.922 1484	0.924 0606	0.925 9738	0.929 8036	8
9	0.976 0460	0.978 2359	0.980 4275	0.984 8157	9
10	1.024 5542	1.027 0230	1.029 4943	1.034 4439	10
11	1.068 7029	1.071 4519	1.074 2041	1.079 7182	11
12	1.109 2531	1.112 2835	1.115 3179	1.121 3991	12
13	1.146 7827	1.150 0953	1.153 4133	1.160 0644	13
14	1.181 7401	1.185 3366	1.188 9392	1.196 1633	14
15	1.214 4819	1.218 3630	1.222 2517	1.230 0515	15
16	1.245 2944	1.249 4617	1.253 6377	1.262 0160	16
17	1.274 4130	1.278 8674	1.283 3319	1.292 2917	17
18	1.302 0318	1.306 7743	1.311 5288	1.321 0728	18
19	1.328 3137	1.333 3456	1.338 3910	1.348 5222	19
20	1.353 3964	1.358 7189	1.364 0567	1.374 7779	20
21	1.377 3976	1.383 0118	1.388 6432	1.399 9572	21
22	1.400 4184	1.406 3256	1.412 2518	1.424 1615	22
23	1.422 5466	1.428 7477	1.434 9702	1.447 4783	23
24	1.443 8585	1.450 3550	1.456 8748	1.469 9841	24
25	1.464 4214	1.471 2142	1.478 0326	1.491 7462	25
26	1.484 2945	1.491 3847	1.498 5031	1.512 8237	26
27	1.503 5301	1.510 9191	1.518 3387	1.533 2689	27
28	1.522 1752	1.529 8640	1.537 5859	1.553 1287	28
29	1.540 2716	1.548 2612	1.556 2868	1.572 4451	29
30	1.557 8567	1.566 1485	1.574 4790	1.591 2556	30
31	1.574 9646	1.583 5596	1.592 1964	1.609 5939	31
32	1.591 6259	1.600 5253	1.609 4694	1.627 4908	32
33	1.607 8683	1.617 0734	1.626 3261	1.644 9741	33
34	1.623 7174	1.633 2291	1.642 7918	1.662 0692	34
35	1.639 1962	1.649 0156	1.658 8895	1.678 7990	35
36	1.654 3258	1.664 4542	1.674 6404	1.695 1850	36
37	1.669 1256	1.679 5642	1.690 0641	1.711 2464	37
38	1.683 6137	1.694 3635	1.705 1782	1.727 0011	38
39	1.697 8065	1.708 8686	1.719 9995	1.742 4656	39
40	1.711 7192	1.723 0948	1.734 5430	1.757 6552	40
41	1.725 3657	1.737 0560	1.748 8228	1.772 5837	41
42	1.738 7594	1.750 7655	1.762 8521	1.787 2646	42
43	1.751 9124	1.764 2353	1.776 6430	1.801 7097	43
44	1.764 8359	1.777 4769	1.790 2068	1.815 9306	44
45	1.777 5405	1.790 5007	1.803 5541	1.829 9376	45
46	1.790 0361	1.803 3166	1.816 6947	1.843 7407	46
47	1.802 3320	1.815 9338	1.829 6378	1.857 3490	47
48	1.814 4366	1.828 3610	1.842 3922	1.870 7712	48
49	1.826 3582	1.840 6063	1.854 9658	1.884 0154	49
50	1.838 1043	1.852 6772	1.867 3663	1.897 0893	50

Amount of 1 Per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	70.7428 1226	73.2117 8237	75.7880 7046	81.2830 1361	51
52	72.6270 9741	75.2184 4437	77.9248 9152	83.7054 6635	52
53	74.5349 3613	77.2526 9798	80.0937 6489	86.1703 1201	53
54	76.4666 2283	79.3149 2258	82.2951 7136	88.6782 9247	54
55	78.4224 5562	81.4055 0277	84.5295 9893	91.2301 6259	55
56	80.4027 3631	83.5248 2843	86.7975 4292	93.8266 9043	56
57	82.4077 7052	85.6732 9482	89.0995 0606	96.4686 5752	57
58	84.4378 6765	87.8513 0262	91.4359 9865	99.1568 5902	58
59	86.4933 4099	90.0592 5804	93.8075 3863	101.8921 0405	59
60	88.5745 0776	92.2975 7283	96.2146 5171	104.6752 1588	60
61	90.6816 8910	94.5666 6446	98.6578 7149	107.5070 3215	61
62	92.8152 1022	96.8669 5610	101.1377 3956	110.3884 0522	62
63	94.9754 0034	99.1988 7674	103.6548 0565	113.3202 0231	63
64	97.1625 9285	101.5628 6130	106.2096 2774	116.3033 0585	64
65	99.3771 2526	103.9593 5064	108.8027 7215	119.3386 1370	65
66	101.6193 3933	106.3887 9171	111.4348 1374	122.4270 3944	66
67	103.8895 8107	108.8516 3760	114.1063 3594	125.5695 1263	67
68	106.1882 0083	111.3483 4761	116.8179 3098	128.7669 7910	68
69	108.5155 5334	113.8793 8739	119.5701 9995	132.0204 0124	69
70	110.8719 9776	116.4452 2897	122.3637 5295	135.3307 5826	70
71	113.2578 9773	119.0463 5087	125.1992 0924	138.6990 4653	71
72	115.6736 2145	121.6832 3819	128.0771 9738	142.1262 7984	72
73	118.1195 4172	124.3563 8272	130.9983 5534	145.6134 8974	73
74	120.5960 3599	127.0662 8298	133.9633 3067	149.1617 2581	74
75	123.1034 8644	129.8134 4437	136.9727 8063	152.7720 5601	75
76	125.6422 8002	132.5983 7923	140.0273 7234	156.4455 6699	76
77	128.2128 0852	135.4216 0695	143.1277 8292	160.1833 6441	77
78	130.8154 6863	138.2836 5404	146.2746 9967	163.9865 7329	78
79	133.4506 6199	141.1850 5429	149.4688 2016	167.8563 3832	79
80	136.1187 9526	144.1263 4878	152.7108 5247	171.7938 2424	80
81	138.8202 8020	147.1080 8608	156.0015 1525	175.8002 1617	81
82	141.5555 3370	150.1308 2226	159.3415 3798	179.8767 1995	82
83	144.3249 7787	153.1951 2107	162.7316 6105	184.0245 6255	83
84	147.1290 4010	156.3015 5398	166.1726 3597	188.2449 9239	84
85	149.9681 5310	159.4507 0035	169.6652 2551	192.5392 7976	85
86	152.8427 5501	162.6431 4748	173.2102 0389	196.9087 1716	86
87	155.7532 8945	165.8794 9076	176.8083 5695	201.3546 1971	87
88	158.7002 0557	169.1603 3375	180.4604 8230	205.8783 2555	88
89	161.6839 5814	172.4862 8834	184.1673 8954	210.4811 9625	89
90	164.7050 0762	175.8579 7481	187.9299 0038	215.1646 1718	90
91	167.7638 2021	179.2760 2196	191.7488 4889	219.9299 9798	91
92	170.8608 6796	182.7410 6726	195.6250 8162	224.7787 7295	92
93	173.9966 2881	186.2537 5694	199.5594 5784	229.7124 0148	93
94	177.1715 8667	189.8147 4610	203.5528 4971	234.7323 6850	94
95	180.3862 3151	193.4246 9886	207.6061 4246	239.8401 8495	95
96	183.6410 5940	197.0842 8847	211.7202 3459	245.0373 8819	96
97	186.9365 7264	200.7941 9743	215.8960 3811	250.3255 4248	97
98	190.2732 7980	204.5551 1765	220.1344 7868	255.7062 3947	98
99	193.6516 9580	208.3677 5051	224.4364 9586	261.1810 9866	99
100	197.0723 4200	212.2328 0708	228.8030 4330	266.7517 6789	100

Logarithm of Amount of 1 per Annum at Compound Interest

$$log\ s_{\overline{n}|}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	1.849 6823	1.864 5810	1.879 6008	1.909 9997	51
52	1.861 0987	1.876 3244	1.891 6761	1.922 7538	52
53	1.872 3599	1.887 9137	1.903 5987	1.935 3576	53
54	1.883 4719	1.899 3549	1.915 3743	1.947 8173	54
55	1.894 4404	1.910 6538	1.927 0088	1.960 1384	55
56	1.905 2708	1.921 8156	1.938 5074	1.972 3263	56
57	1.915 9681	1.932 8455	1.949 8752	1.984 3862	57
58	1.926 5372	1.943 7482	1.961 1172	1.996 3227	58
59	1.936 9827	1.954 5283	1.972 2377	2.008 1405	59
60	1.947 3087	1.965 1903	1.983 2412	2.019 8438	60
61	1.957 5196	1.975 7381	1.994 1317	2.031 4367	61
62	1.967 6191	1.986 1756	2.004 9130	2.042 9234	62
63	1.977 6111	1.996 5068	2.015 5894	2.054 3073	63
64	1.987 4990	2.006 7349	2.026 1637	2.065 5920	64
65	1.997 2864	2.016 8636	2.036 6400	2.076 7809	65
66	2.006 9762	2.026 8959	2.047 0208	2.087 8773	66
67	2.016 5720	2.036 8349	2.057 3096	2.098 8841	67
68	2.026 0762	2.046 6838	2.067 5094	2.109 8045	68
69	2.035 4921	2.056 4452	2.077 6229	2.120 6410	69
70	2.044 8218	2.066 1217	2.087 6529	2.131 3966	70
71	2.054 0685	2.075 7161	2.097 6015	2.142 7033	71
72	2.063 2342	2.085 2308	2.107 4718	2.152 6744	72
73	2.072 3216	2.094 6681	2.117 2659	2.163 2016	73
74	2.081 3329	2.104 0303	2.126 9858	2.173 6573	74
75	2.090 2704	2.113 3196	2.136 6343	2.184 0440	75
76	2.099 1358	2.122 5382	2.146 2130	2.194 3633	76
77	2.107 9313	2.131 6880	2.155 7240	2.204 6174	77
78	2.116 6591	2.140 7709	2.165 1692	2.214 8083	78
79	2.125 3208	2.149 7887	2.174 5505	2.224 9376	79
80	2.133 9180	2.158 7434	2.183 8700	2.235 0075	80
81	2.142 4529	2.167 6366	2.193 1287	2.245 0193	81
82	2.150 9267	2.176 4699	2.202 3289	2.254 9749	82
83	2.159 3415	2.185 2449	2.211 4721	2.264 8758	83
84	2.167 6983	2.193 9633	2.220 5594	2.274 7234	84
85	2.175 9991	2.202 6264	2.229 5928	2.284 5194	85
86	2.184 2449	2.211 2358	2.238 5735	2.294 2649	86
87	2.192 4372	2.219 7927	2.247 5028	2.303 9616	87
88	2.200 5774	2.228 2985	2.256 3822	2.313 6106	88
89	2.208 6670	2.236 7546	2.265 2127	2.323 2132	89
90	2.216 7068	2.245 1621	2.273 9958	2.332 7707	90
91	2.224 6982	2.253 5222	2.282 7326	2.342 2845	91
92	2.232 6426	2.261 8361	2.291 4246	2.351 7553	92
93	2.240 5407	2.270 1051	2.300 0724	2.361 1844	93
94	2.248 3941	2.278 3300	2.308 6772	2.370 5730	94
95	2.256 2033	2.286 5119	2.317 2401	2.379 9219	95
96	2.263 9698	2.294 6520	2.325 7623	2.389 2323	96
97	2.271 6943	2.302 7512	2.334 2445	2.398 5051	97
98	2.279 3778	2.310 8104	2.342 6881	2.407 7413	98
99	2.287 0213	2.318 8305	2.351 0935	2.416 9417	99
100	2.294 6255	2.326 8125	2.359 4617	2.426 1073	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	2%	2¼%	2½%	2¾%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0200 0000	2.0225 0000	2.0250 0000	2.0275 0000	2
3	3.0604 0000	3.0680 0625	3.0756 2500	3.0832 5625	3
4	4.1216 0800	4.1370 3639	4.1525 1563	4.1680 4580	4
5	5.2040 4016	5.2301 1971	5.2563 2852	5.2826 6706	5
6	6.3081 2096	6 3477 9740	6.3877 3673	6.4279 4040	6
7	7.4342 8338	7.4906 2284	7.5474 3015	7.6047 0876	7
8	8.5829 6905	8.6591 6186	8.7361 1590	8.8138 3825	8
9	9.7546 2843	9.8539 9300	9.9545 1880	10.0562 1880	9
10	10.9497 2100	11.0757 0784	11.2033 8177	11.3327 6482	10
11	12.1687 1542	12.3249 1127	12.4834 6631	12.6444 1585	11
12	13.4120 8973	13.6022 2177	13.7955 5297	13.9921 3729	12
13	14.6803 3152	14.9082 7176	15.1404 4179	15.3769 2107	13
14	15.9739 3815	16.2437 0788	16.5189 5284	16.7997 8639	14
15	17.2934 1692	17.6091 9130	17.9319 2666	18.2617 8052	15
16	18.6392 8525	19.0053 9811	19.3802 2483	19.7639 7948	16
17	20.0120 7096	20.4330 1957	20.8647 3045	21.3074 8892	17
18	21.4123 1238	21.8927 6251	22.3863 4871	22.8934 4487	18
19	22.8405 5863	23.3853 4966	23.9460 0743	24.5230 1460	19
20	24.2973 6980	24.9115 2003	25.5446 5761	26.1973 9750	20
21	25.7833 1719	26.4720 2923	27.1832 7405	27.9178 2593	21
22	27.2989 8354	28.0676 4989	28.8628 5590	29.6855 6615	22
23	28.8449 6321	29.6991 7201	30.5844 2730	31.5019 1921	23
24	30.4218 6247	31.3674 0338	32.3490 3798	33.3682 2199	24
25	32.0302 9972	33.0731 6996	34.1577 6393	35.2858 4810	25
26	33.6709 0572	34.8173 1628	36.0117 0803	37.2562 0892	26
27	35.3443 2383	36.6007 0590	37.9120 0073	39.2807 5467	27
28	37.0512 1031	38.4242 2178	39.8598 0075	41.3609 7542	28
29	38.7922 3451	40.2887 6677	41.8562 9577	43.4984 0224	29
30	40.5680 7921	42.1952 6402	43.9027 0316	45.6946 0830	30
31	42.3794 4079	44.1446 5746	46.0002 7074	47.9512 1003	31
32	44.2270 2961	46.1379 1226	48.1502 7751	50.2698 6831	32
33	46.1115 7020	48.1760 1528	50.3540 3445	52.6522 8969	33
34	48.0338 0160	50.2599 7563	52.6128 8531	55.1002 2765	34
35	49.9944 7763	52.3908 2508	54.9282 0744	57.6154 8391	35
36	51.9943 6719	54.5696 1864	57.3014 1263	60.1999 0972	36
37	54.0342 5453	56.7974 3506	59.7339 4794	62.8554 0724	37
38	56.1149 3962	59.0753 7735	62.2272 9664	65.5839 3094	38
39	58.2372 3841	61.4045 7334	64.7829 7906	68.3874 8904	39
40	60.4019 8318	63.7861 7624	67.4025 5354	71.2681 4499	40
41	62.6100 2284	66.2213 6521	70.0876 1737	74.2280 1898	41
42	64.8622 2330	68.7113 4592	72.8398 0781	77.2692 8950	42
43	67.1594 6777	71.2573 5121	75.6608 0300	80.3941 9496	43
44	69.5026 5712	73.8606 4161	78.5523 2308	83.6050 3532	44
45	71.8927 1027	76.5225 0605	81.5161 3116	86.9041 7379	45
46	74.3305 6447	79.2442 6243	84.5540 3443	90.2940 3857	46
47	76.8171 7576	82.0272 5834	87.6678 8530	93.7771 2463	47
48	79.3535 1927	84.8728 7165	90.8595 8243	97.3559 9556	48
49	81.9405 8966	87.7825 1126	94.1310 7199	101.0332 8544	49
50	84.5794 0145	90.7576 1776	97.4843 4879	104.8117 0079	50

Logarithm of Amount of 1 per Annum at Compound Interest

$\log s_{\overline{n}}$

n	2%	2¼%	2½%	2¾%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.305 3514	0.305 8885	0.306 4250	0.306 9609	2
3	0.485 7782	0.486 8563	0.487 9334	0.489 0096	3
4	0.615 0666	0.616 6893	0.618 3112	0.619 9325	4
5	0.716 3407	0.718 5116	0.720 6825	0.722 8532	5
6	0.799 9000	0.802 6230	0.805 3470	0.808 0718	6
7	0.871 2391	0.874 5179	0.877 7991	0.881 0826	7
8	0.933 6376	0.937 4759	0.941 3184	0.945 1651	8
9	0.989 2107	0.993 6123	0.998 0203	1.002 4348	9
10	1.039 4030	1.044 3715	1.049 3491	1.054 3359	10
11	1.085 2447	1.090 7838	1.096 3352	1.101 8988	11
12	1.127 4964	1.133 6099	1.139 7391	1.145 8840	12
13	1.166 7359	1.173 4273	1.180 1386	1.186 8694	13
14	1.203 4120	1.210 6852	1.217 9825	1.225 3038	14
15	1.237 8808	1.245 7394	1.253 6269	1.261 5431	15
16	1.270 4292	1.278 8770	1.287 3588	1.295 8744	16
17	1.301 2920	1.310 3325	1.319 4128	1.328 5323	17
18	1.330 6635	1.340 3006	1.349 9833	1.359 7112	18
19	1.358 7067	1.368 9439	1.379 2331	1.389 5739	19
20	1.385 5593	1.396 4002	1.407 3001	1.418 2582	20
21	1.411 3388	1.422 7873	1.434 3018	1.445 8816	21
22	1.436 1465	1.448 2061	1.460 3393	1.472 5454	22
23	1.460 0699	1.472 7443	1.485 5004	1.498 3370	23
24	1.483 1858	1.496 4786	1.509 8614	1.523 3331	24
25	1.505 5610	1.519 4758	1.533 4894	1.547 6005	25
26	1.527 2548	1.541 7953	1.556 4437	1.571 1986	26
27	1.548 3197	1.563 4895	1.578 7767	1.594 1798	27
28	1.568 8024	1.584 6051	1.600 5351	1.616 5907	28
29	1.588 7448	1.605 1840	1.621 7608	1.638 4733	29
30	1.608 1844	1.625 2637	1.642 4913	1.659 8650	30
31	1.627 1552	1.644 8781	1.662 7604	1.680 7996	31
32	1.645 6878	1.664 0580	1.682 5988	1.701 3078	32
33	1.663 8099	1.682 8308	1.702 0343	1.721 4173	33
34	1.681 5470	1.701 2223	1.721 0921	1.741 1534	34
35	1.698 9221	1.719 2552	1.739 7954	1.760 5392	35
36	1.715 9563	1.736 9510	1.758 1653	1.779 5959	36
37	1.732 6692	1.754 3287	1.776 2212	1.798 3426	37
38	1.749 0785	1.771 4065	1.793 9810	1.816 7975	38
39	1.765 2008	1.788 2007	1.811 4610	1.834 9767	39
40	1.781 0512	1.804 7266	1.828 6763	1.852 8954	40
41	1.796 6439	1.820 9981	1.845 6413	1.870 5679	41
42	1.811 9918	1.837 0285	1.862 3688	1.888 0070	42
43	1.827 1072	1.852 8296	1.878 8710	1.905 2247	43
44	1.842 0014	1.868 4131	1.895 1590	1.922 2325	44
45	1.856 6849	1.883 7892	1.911 2436	1.939 0407	45
46	1.871 1674	1.898 9678	1.927 1344	1.955 6591	46
47	1.885 4583	1.913 9582	1.942 8405	1.972 0969	47
48	1.899 5662	1.928 7689	1.958 3707	1.988 3627	48
49	1.913 4991	1.943 4080	1.973 7330	2.004 4645	49
50	1.927 2646	1.957 8831	1.988 9349	2.020 4098	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	2%	2¼%	2½%	2¾%	n
51	87.2709 8948	93.7996 6416	100.9214 5751	108.6940 2256	51
52	90.0164 0927	96.9101 5661	104.4444 9395	112.6831 0818	52
53	92.8167 3746	100.0906 3513	108.0556 0629	116.7818 9365	53
54	95.6730 7221	103.3426 7442	111.7569 9645	120.9933 9573	54
55	98.5865 3365	106.6678 8460	115.5509 2136	125.3207 1411	55
56	101.5582 6432	110.0679 1200	119.4396 9440	129.7670 3375	56
57	104.5894 2961	113.5444 4002	123.4256 8676	134.3356 2718	57
58	107.6812 1820	117.0991 8992	127.5113 2893	139.0298 5692	58
59	110.8348 4257	120.7339 2169	131.6991 1215	143.8531 7799	59
60	114.0515 3942	124.4504 3493	135.9915 8995	148.8091 4038	60
61	117.3325 7021	128.2505 6972	140.3913 7970	153.9013 9174	61
62	120.6792 2161	132.1362 0754	144.9011 6419	159.1336 8002	62
63	124.0928 0604	136.1092 7221	149.5236 9330	164.5098 5622	63
64	127.5746 6216	140.1717 3083	154.2617 8563	170.0338 7726	64
65	131.1261 5541	144.3255 9477	159.1183 3027	175.7098 0889	65
66	134.7486 7852	148.5729 2066	164.0962 8853	181.5418 2863	66
67	138.4436 5209	152.9158 1137	169.1986 9574	187.5342 2892	67
68	142.2125 2513	157.3564 1713	174.4286 6314	193.6914 2021	68
69	146.0567 7563	161.8969 3651	179.7893 7971	200.0179 3427	69
70	149.9779 1114	166.5396 1758	185.2841 1421	206.5184 2746	70
71	153.9774 6937	171.2867 5898	190.9162 1706	213.1976 8422	71
72	158.0570 1875	176.1407 1106	196.6891 2249	220.0606 2054	72
73	162.2181 5913	181.1038 7705	202.6063 5055	227.1122 8760	73
74	166.4625 2231	186.1787 1429	208.6715 0931	234.3578 7551	74
75	170.7917 7276	191.3677 3536	214.8882 9705	241.8027 1709	75
76	175.2076 0821	196.6735 0941	221.2605 0447	249.4522 9181	76
77	179.7117 6038	202.0986 6337	227.7920 1709	257.3122 2983	77
78	184.3059 9558	207.6458 8329	234.4868 1751	265.3883 1615	78
79	188.9921 1549	213.3179 1567	241.3489 8795	273.6864 9485	79
80	193.7719 5780	219.1175 6877	248.3827 1265	282.2128 7345	80
81	198.6473 9696	225.0477 1407	255.5922 8047	290.9737 2747	81
82	203.6203 4490	231.1112 8763	262.9820 8748	299.9755 0498	82
83	208.6927 5180	237.3112 9160	270.5566 3966	309.2248 3137	83
84	213.8666 0683	243.6507 9567	278.3205 5566	318.7285 1423	84
85	219.1439 3897	250.1329 3857	286.2785 6955	328.4935 4837	85
86	224.5268 1775	256.7609 2969	294.4355 3379	338.5271 2095	86
87	230.0173 5411	263.5380 5060	302.7964 2213	348.8366 1678	87
88	235.6177 0119	270.4676 5674	311.3663 3268	359.4296 2374	88
89	241.3300 5521	277.5531 7902	320.1504 9100	370.3139 3839	89
90	247.1566 5632	284.7981 2555	329.1542 5328	381.4975 7170	90
91	253.0997 8944	292.2060 8337	338.3831 0961	392.9887 5492	91
92	259.1617 8523	299.7807 2025	347.8426 8735	404.7959 4568	92
93	265.3450 2094	307.5257 8645	357.5387 5453	416.9278 3418	93
94	271.6519 2135	315.4451 1665	367.4772 2339	429.3933 4962	94
95	278.0849 5978	323.5426 3177	377.6641 5398	442.2016 6674	95
96	284.6466 5898	331.8223 4099	388.1057 5783	455.3622 1257	96
97	291.3395 9216	340.2883 4366	398.8084 0177	468.8846 7342	97
98	298.1663 8400	348.9448 3139	409.7786 1182	482.7790 0194	98
99	305.1297 1168	357.7960 9010	421.0230 7711	497.0554 2449	99
100	312.2323 0591	366.8465 0213	432.5486 5404	511.7244 4867	100

Logarithm of Amount of 1 per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	2%	$2\frac{1}{4}\%$	$2\frac{1}{2}\%$	$2\frac{3}{4}\%$	n
51	1.940 8699	1.972 2013	2.003 9836	2.036 2055	51
52	1.954 3216	1.986 3693	2.018 8855	2.051 8588	52
53	1.967 6262	2.000 3935	2.033 6473	2.067 3755	53
54	1.980 7897	2.014 2798	2.048 2747	2.082 7617	54
55	1.993 8175	2.028 0337	2.062 7734	2.098 0228	55
56	2.006 7153	2.041 6607	2.077 1487	2.113 1642	56
57	2.019 4877	2.055 1657	2.091 4055	2.128 1910	57
58	2.032 1399	2.068 5539	2.105 5487	2.143 1081	58
59	2.044 6761	2.081 8292	2.119 5828	2.157 9195	59
60	2.057 1012	2.094 9962	2.133 5121	2.172 6294	60
61	2.069 4186	2.108 0594	2.147 3405	2.187 2425	61
62	2.081 6324	2.121 0217	2.161 0720	2.201 7622	62
63	2.093 7466	2.133 8877	2.174 7100	2.216 1920	63
64	2.105 7645	2.146 6603	2.188 2583	2.230 5355	64
65	2.117 6894	2.159 3433	2.201 7201	2.244 7960	65
66	2.129 5246	2.171 9397	2.215 0987	2.258 9766	66
67	2.141 2731	2.184 4523	2.228 3970	2.273 0805	67
68	2.152 9377	2.196 8843	2.241 6177	2.287 1103	68
69	2.164 5217	2.209 2386	2.254 7640	2.301 0688	69
70	2.176 0272	2.221 5175	2.267 8381	2.314 9587	70
71	2.187 4572	2.233 7238	2.280 8427	2.328 7825	71
72	2.198 8137	2.245 8597	2.293 7803	2.342 5422	72
73	2.210 0995	2.257 9278	2.306 6531	2.356 2406	73
74	2.221 3164	2.269 9299	2.319 4631	2.369 8796	74
75	2.232 4669	2.281 8688	2.332 2127	2.383 4611	75
76	2.243 5529	2.293 7458	2.344 9038	2.396 9875	76
77	2.254 5765	2.305 5634	2.357 5385	2.410 4603	77
78	2.265 5394	2.317 3233	2.370 1183	2.423 8818	78
79	2.276 4436	2.329 0273	2.382 6455	2.437 2533	79
80	2.287 2909	2.340 6772	2.395 1213	2.450 5768	80
81	2.298 0829	2.352 2745	2.407 5477	2.463 8537	81
82	2.308 8212	2.363 8211	2.419 9261	2.477 0857	82
83	2.319 5074	2.375 3183	2.432 2581	2.490 2743	83
84	2.330 1429	2.386 7678	2.444 5453	2.503 4208	84
85	2.340 7294	2.398 1708	2.456 7888	2.516 5268	85
86	2.351 2681	2.409 5289	2.468 9901	2.529 5934	86
87	2.361 7606	2.420 8433	2.481 1507	2.542 6220	87
88	2.372 2079	2.432 1153	2.493 2716	2.555 6138	88
89	2.382 6114	2.443 3462	2.505 3541	2.568 5700	89
90	2.392 9723	2.454 5370	2.517 3995	2.581 4917	90
91	2.403 2917	2.465 6893	2.529 4086	2.594 3801	91
92	2.413 5710	2.476 8037	2.541 3828	2.607 2361	92
93	2.423 8109	2.487 8815	2.553 3231	2.620 0608	93
94	2.434 0127	2.498 9237	2.565 2303	2.632 8552	94
95	2.444 1776	2.509 9314	2.577 1058	2.645 6203	95
96	2.454 3061	2.520 9055	2.588 9500	2.658 3569	96
97	2.464 3995	2.531 8470	2.600 7642	2.671 0660	97
98	2.474 4586	2.542 7567	2.612 5493	2.683 7484	98
99	2.484 4844	2.553 6355	2.624 3059	2.696 4047	99
100	2.494 4777	2.564 4843	2.636 0350	2.709 0361	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	3%	3½%	4%	4½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0300 0000	2.0350 0000	2.0400 0000	2.0450 0000	2
3	3.0909 0000	3.1062 2500	3.1216 0000	3.1370 2500	3
4	4.1836 2700	4.2149 4288	4.2464 6400	4.2781 9113	4
5	5.3091 3581	5.3624 6588	5.4163 2256	5.4707 0973	5
6	6.4684 0988	6.5501 5218	6.6329 7546	6.7168 9166	6
7	7.6624 6218	7.7794 0751	7.8982 9448	8.0191 5179	7
8	8.8923 3605	9.0516 8677	9.2142 2626	9.3800 1362	8
9	10.1591 0613	10.3684 9581	10.5827 9531	10.8021 1423	9
10	11.4638 7931	11.7313 9316	12.0061 0712	12.2882 0937	10
11	12.8077 9569	13.1419 9192	13.4863 5141	13.8411 7879	11
12	14.1920 2956	14.6019 6164	15.0258 0546	15.4640 3184	12
13	15.6177 9045	16.1130 3030	16.6268 3768	17.1599 1327	13
14	17.0863 2416	17.6769 8636	18.2919 1119	18.9321 0937	14
15	18.5989 1389	19.2956 8088	20.0235 8764	20.7840 5429	15
16	20.1568 8130	20.9710 2971	21.8245 3114	22.7193 3673	16
17	21.7615 8774	22.7050 1575	23.6975 1239	24.7417 0689	17
18	23.4144 3537	24.4996 9130	25.6454 1288	26.8550 8370	18
19	25.1168 6844	26.3571 8050	27.6712 2940	29.0635 6246	19
20	26.8703 7449	28.2796 8181	29.7780 7858	31.3714 2277	20
21	28.6764 8572	30.2694 7068	31.9692 0172	33.7831 3680	21
22	30.5367 8030	32.3289 0215	34.2479 6979	36.3033 7795	22
23	32.4528 8370	34.4604 1373	36.6178 8858	38.9370 2996	23
24	34.4264 7022	36.6665 2821	39.0826 0412	41.6891 9631	24
25	36.4592 6432	38.9498 5669	41.6459 0829	44.5652 1015	25
26	38.5530 4225	41.3131 0168	44.3117 4462	47.5706 4460	26
27	40.7096 3352	43.7590 6024	47.0842 1440	50.7113 2361	27
28	42.9309 2252	46.2906 2734	49.9675 8298	53.9933 3317	28
29	45.2188 5020	48.9107 9930	52.9662 8630	57.4230 3316	29
30	47.5754 1571	51.6226 7728	56.0849 3775	61.0070 6966	30
31	50.0026 7818	54.4294 7098	59.3283 3526	64.7523 8779	31
32	52.5027 5852	57.3345 0247	62.7014 6867	68.6662 4524	32
33	55.0778 4128	60.3412 1005	66.2095 2742	72.7562 2628	33
34	57.7301 7652	63.4531 5240	69.8579 0851	77.0302 5646	34
35	60.4620 8181	66.6740 1274	73.6522 2486	81.4966 1800	35
36	63.2759 4427	70.0076 0318	77.5983 1385	86.1639 6581	36
37	66.1742 2259	73.4578 6930	81.7022 4640	91.0413 4427	37
38	69.1594 4927	77.0288 9472	85.9703 3626	96.1382 0476	38
39	72.2342 3275	80.7249 0604	90.4091 4971	101.4644 2398	39
40	75.4012 5973	84.5502 7775	95.0255 1570	107.0303 2306	40
41	78.6632 9753	88.5095 3747	99.8265 3633	112.8466 8760	41
42	82.0231 9645	92.6073 7128	104.8195 9778	118.9247 8854	42
43	85.4838 9234	96.8486 2928	110.0123 8169	125.2764 0402	43
44	89.0484 0911	101.2383 3130	115.4128 7696	131.9138 4220	44
45	92.7198 6139	105.7816 7290	121.0293 9204	138.8499 6510	45
46	96.5014 5723	110.4840 3145	126.8705 6772	146.0982 1353	46
47	100.3965 0095	115.3509 7255	132.9453 9043	153.6726 3314	47
48	104.4083 9598	120.3882 5659	139.2632 0604	161.5879 0163	48
49	108.5406 4785	125.6018 4557	145.8337 3429	169.8593 5720	49
50	112.7968 6729	130.9979 1016	152.6670 8366	178.5030 2828	50

Logarithm of Amount of 1 Per Annum at Compound Interest

$$\log s_{\overline{n}|}$$

n	3%	3½%	4%	4½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.307 4960	0.308 5644	0.309 6302	0.310 6933	2
3	0.490 0850	0.492 2329	0.494 3773	0.496 5180	3
4	0.621 5530	0.624 7917	0.628 0274	0.631 2602	4
5	0.725 0238	0.729 3645	0.733 7045	0.738 0437	5
6	0.810 7976	0.816 2513	0.821 7084	0.827 1684	6
7	0.884 3683	0.890 9465	0.897 5333	0.904 1284	7
8	0.949 0159	0.956 7296	0.964 4588	0.972 2034	8
9	1.006 8555	1.015 7158	1.024 6004	1.033 5088	9
10	1.059 3316	1.069 3496	1.079 4022	1.089 4886	10
11	1.107 4744	1.118 6612	1.129 8945	1.141 1731	11
12	1.152 0445	1.164 4112	1.176 8378	1.189 3227	12
13	1.193 6196	1.207 1772	1.220 8097	1.234 5151	13
14	1.232 6486	1.247 4083	1.262 2591	1.277 1990	14
15	1.269 4876	1.285 4601	1.301 5419	1.317 7302	15
16	1.304 4233	1.321 6197	1.338 9450	1.356 3956	16
17	1.337 6906	1.356 1218	1.374 7028	1.393 4296	17
18	1.369 4837	1.389 1606	1.409 0097	1.429 0265	18
19	1.399 9655	1.420 8990	1.442 0285	1.463 3488	19
20	1.429 2737	1.451 4745	1.473 8966	1.496 5342	20
21	1.457 5259	1.481 0048	1.504 7318	1.528 7000	21
22	1.484 8233	1.509 5910	1.534 6348	1.559 9470	22
23	1.511 2533	1.537 3205	1.563 6933	1.590 3628	23
24	1.536 8925	1.564 2698	1.591 9835	1.620 0235	24
25	1.561 8079	1.590 5059	1.619 5723	1.648 9960	25
26	1.586 0587	1.616 0878	1.646 5189	1.677 3391	26
27	1.609 6972	1.641 0680	1.672 8754	1.705 1050	27
28	1.632 7702	1.665 4931	1.698 6883	1.732 3402	28
29	1.655 3195	1.689 4047	1.723 9995	1.759 0861	29
30	1.677 3826	1.712 8405	1.748 8462	1.785 3802	30
31	1.698 9934	1.735 8342	1.773 2621	1.811 2558	31
32	1.720 1821	1.758 4160	1.797 2777	1.836 7433	32
33	1.740 9769	1.780 6141	1.820 9205	1.861 8702	33
34	1.761 4029	1.802 4532	1.844 2155	1.886 6613	34
35	1.781 4831	1.823 9566	1.867 1858	1.911 1396	35
36	1.801 2386	1.845 1452	1.889 8523	1.935 3257	36
37	1.820 6888	1.866 0383	1.912 2340	1.959 2387	37
38	1.839 8515	1.886 6537	1.934 3486	1.982 8960	38
39	1.858 7431	1.907 0076	1.956 2124	2.006 3138	39
40	1.877 3786	1.927 1150	1.977 8402	2.029 5068	40
41	1.895 7721	1.946 9900	1.999 2460	2.052 4889	41
42	1.913 9366	1.966 6455	2.020 4425	2.075 2724	42
43	1.931 8843	1.986 0935	2.041 4416	2.097 8692	43
44	1.949 6262	2.005 3449	2.062 2543	2.120 2903	44
45	1.967 1727	2.024 4104	2.082 8908	2.142 5458	45
46	1.984 5339	2.043 2994	2.103 3608	2.164 6449	46
47	2.001 7186	2.062 0213	2.123 6732	2.186 5965	47
48	2.018 7354	2.080 5841	2.143 8364	2.208 4089	48
49	2.035 5924	2.098 9960	2.163 8580	2.230 0895	49
50	2.052 2970	2.117 2644	2.183 7454	2.251 6456	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	3%	3½%	4%	4½%	n
51	117.1807 7331	136.5828 3702	159.7737 6700	187.5356 6455	51
52	121.6961 9651	142.3632 3631	167.1647 1768	196.9747 6946	52
53	126.3470 8240	148.3459 4958	174.8513 0639	206.8386 3408	53
54	131.1374 9488	154.5380 5782	182.8453 5865	217.1463 7262	54
55	136.0716 1972	160.9468 8984	191.1591 7299	227.9179 5938	55
56	141.1537 6831	167.5800 3099	199.8055 3991	239.1742 6756	56
57	146.3883 8136	174.4453 3207	208.7977 6151	250.9371 0960	57
58	151.7800 3280	181.5509 1869	218.1496 7197	263.2292 7953	58
59	157.3334 3379	188.9052 0085	227.8756 5885	276.0745 9711	59
60	163.0534 3680	196.5168 8288	237.9906 8520	289.4979 5398	60
61	168.9450 3991	204.3949 7378	248.5103 1261	303.5253 6190	61
62	175.0133 9110	212.5487 9786	259.4507 2511	318.1840 0319	62
63	181.2637 9284	220.9880 0579	270.8287 5412	333.5022 8333	63
64	187.7017 0662	229.7225 8599	282.6619 0428	349.5098 8608	64
65	194.3327 5782	238.7628 7650	294.9683 8045	366.2378 3096	65
66	201.1627 4055	248.1195 7718	307.7671 1567	383.7185 3335	66
67	208.1976 2277	257.8037 6238	321.0778 0030	401.9858 6735	67
68	215.4435 5145	267.8268 9406	334.9209 1231	421.0752 3138	68
69	222.9068 5800	278.2008 3535	349.3177 4880	441.0236 1679	69
70	230.5940 6374	288.9378 6459	364.2904 5876	461.8696 7955	70
71	238.5118 8565	300.0506 8985	379.8620 7711	483.6538 1513	71
72	246.6672 4222	311.5524 6400	396.0565 6019	506.4182 3681	72
73	255.0672 5949	323.4568 0024	412.8988 2260	530.2070 5747	73
74	263.7192 7727	335.7777 8824	430.4147 7550	555.0663 7505	74
75	272.6308 5559	348.5300 1083	448.6313 6652	581.0443 6193	75
76	281.8097 8126	361.7285 6121	467.5766 2118	608.1913 5822	76
77	291.2640 7469	375.3890 6085	487.2796 8603	636.5599 6934	77
78	301.0019 9693	389.5276 7798	507.7708 7347	666.2051 6796	78
79	311.0320 5684	404.1611 4671	529.0817 0841	697.1844 0052	79
80	321.3630 1855	419.3067 8685	551.2449 7675	729.5576 9854	80
81	332.0039 0910	434.9825 2439	574.2947 7582	763.3877 9497	81
82	342.9640 2638	451.2069 1274	598.2665 6685	798.7402 4575	82
83	354.2529 4717	467.9991 5469	623.1972 2952	835.6835 5680	83
84	365.8805 3558	485.3791 2510	649.1251 1870	874.2893 1686	84
85	377.8569 5165	503.3673 9448	676.0901 2345	914.6323 3612	85
86	390.1926 6020	521.9852 5329	704.1337 2839	956.7907 9125	86
87	402.8984 4001	541.2547 3715	733.2990 7753	1000.8463 7685	87
88	415.9853 9321	561.1986 5295	763.6310 4063	1046.8844 6381	88
89	429.4649 5500	581.8406 0581	795.1762 8225	1094.9942 6468	89
90	443.3489 0365	603.2050 2701	827.9833 3354	1145.2690 0659	90
91	457.6493 7076	625.3172 0295	862.1026 6688	1197.8061 1189	91
92	472.3788 5189	648.2033 0506	897.5867 7356	1252.7073 8692	92
93	487.5502 1744	671.8904 2073	934.4902 4450	1310.0792 1933	93
94	503.1767 2397	696.4065 8546	972.8698 5428	1370.0327 8420	94
95	519.2720 2569	721.7808 1595	1012.7846 4845	1432.6842 5949	95
96	535.8501 8645	748.0431 4451	1054.2960 3439	1498.1550 5117	96
97	552.9256 9205	775.2246 5457	1097.4678 7577	1566.5720 2847	97
98	570.5134 6281	803.3575 1748	1142.3665 9080	1638.0677 6976	98
99	588.6288 6669	832.4750 3059	1189.0612 5443	1712.7808 1939	99
100	607.2877 3270	862.6116 5666	1237.6237 0461	1790.8559 5627	100

$\log s_{\overline{n}|}$

n	3%	3½%	4%	4½%	n
51	2.068 8564	2.135 3960	2.203 5055	2.273 0839	51
52	2.085 2770	2.153 3977	2.223 1445	2.294 4106	52
53	2.101 5652	2.171 2755	2.242 6688	2.315 6315	53
54	2.117 7269	2.189 0355	2.262 0840	2.336 7526	54
55	2.133 7676	2.206 6826	2.281 3951	2.357 7786	55
56	2.149 6925	2.224 2222	2.300 6074	2.378 7145	56
57	2.165 5066	2.241 6592	2.319 7259	2.399 5648	57
58	2.181 2145	2.258 9984	2.338 7546	2.420 3342	58
59	2.196 8210	2.276 2439	2.357 6980	2.441 0264	59
60	2.212 3298	2.293 3999	2.376 5599	2.461 6456	60
61	2.227 7453	2.310 4702	2.395 3444	2.482 1950	61
62	2.243 0713	2.327 4586	2.414 0548	2.502 6783	62
63	2.258 3110	2.344 3686	2.432 6948	2.523 0988	63
64	2.273 4682	2.361 2037	2.451 2673	2.543 4594	64
65	2.288 5461	2.377 9668	2.469 7754	2.563 7631	65
66	2.303 5474	2.394 6611	2.488 2222	2.584 0127	66
67	2.318 4757	2.411 2893	2.506 6103	2.604 2107	67
68	2.333 3335	2.427 8541	2.524 9422	2.624 3596	68
69	2.348 1235	2.444 3583	2.543 2206	2.644 4618	69
70	2.362 8482	2.460 8045	2.561 4478	2.664 5195	70
71	2.377 5100	2.477 1946	2.579 6260	2.684 5346	71
72	2.392 1114	2.493 5312	2.597 7572	2.704 5093	72
73	2.406 6548	2.509 8163	2.615 8436	2.724 4455	73
74	2.421 1419	2.526 0519	2.633 8872	2.744 3449	74
75	2.435 5750	2.542 2402	2.651 8896	2.764 2093	75
76	2.449 9560	2.558 3828	2.669 8527	2.784 0402	76
77	2.464 2869	2.574 4816	2.687 7783	2.803 8393	77
78	2.478 5693	2.590 5383	2.705 6677	2.823 6079	78
79	2.492 8052	2.606 5544	2.723 5227	2.843 3476	79
80	2.506 9958	2.622 5319	2.741 3446	2.863 0596	80
81	2.521 1432	2.638 4718	2.759 1349	2.882 7452	81
82	2.535 2485	2.654 3757	2.776 8947	2.902 4055	82
83	2.549 3134	2.670 2451	2.794 6254	2.922 0418	83
84	2.563 3392	2.686 0810	2.812 3284	2.941 6551	84
85	2.577 3274	2.701 8850	2.830 0045	2.961 2465	85
86	2.591 2791	2.717 6582	2.847 6550	2.980 8169	86
87	2.605 1955	2.733 4016	2.865 2811	3.000 3674	87
88	2.619 0781	2.749 1166	2.882 8835	3.019 8987	88
89	2.632 9277	2.764 8040	2.900 4634	3.039 4118	89
90	2.646 7456	2.780 4649	2.918 0215	3.058 9075	90
91	2.660 5329	2.796 1003	2.935 5589	3.078 3865	91
92	2.674 2904	2.811 7112	2.953 0764	3.097 8497	92
93	2.688 0193	2.827 2984	2.970 5747	3.117 2975	93
94	2.701 7205	2.842 8628	2.988 0547	3.136 7310	94
95	2.715 3948	2.858 4052	3.005 5171	3.156 1505	95
96	2.729 0433	2.873 9265	3.022 9625	3.175 5567	96
97	2.742 6668	2.889 4276	3.040 3918	3.194 9503	97
98	2.756 2659	2.904 9088	3.057 8055	3.214 3319	98
99	2.769 8415	2.920 3712	3.075 2042	3.233 7018	99
100	2.783 3944	2.935 8153	3.092 5886	3.253 0606	100

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	5%	5½%	6%	6½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0500 0000	2.0550 0000	2.0600 0000	2.0650 0000	2
3	3.1525 0000	3.1680 2500	3.1836 0000	3.1992 2500	3
4	4.3101 2500	4.3422 6638	4.3746 1600	4.4071 7463	4
5	5.5256 3125	5.5810 9103	5.6370 9296	5.6936 4098	5
6	6.8019 1281	6.8880 5103	6.9753 1854	7.0637 2764	6
7	8.1420 0845	8.2668 9384	8.3938 3765	8.5228 6994	7
8	9.5491 0888	9.7215 7300	9.8974 6791	10.0768 5648	8
9	11.0265 6432	11.2562 5951	11.4913 1598	11.7318 5215	9
10	12.5778 9254	12.8753 5379	13.1807 9494	13.4944 2254	10
11	14.2067 8716	14.5834 9825	14.9716 4264	15.3715 6001	11
12	15.9171 2652	16.3855 9065	16.8699 4120	17.3707 1141	12
13	17.7129 8285	18.2867 9814	18.8821 3767	19.4998 0765	13
14	19.5986 3199	20.2925 7203	21.0150 6593	21.7672 9515	14
15	21.5785 6359	22.4086 6350	23.2759 6988	24.1821 6933	15
16	23.6574 9177	24.6411 3999	25.6725 2808	26.7540 1034	16
17	25.8403 6636	26.9964 0269	28.2128 7976	29.4930 2101	17
18	28.1323 8467	29.4812 0483	30.9056 5255	32.4100 6738	18
19	30.5390 0391	32.1026 7110	33.7599 9170	35.5167 2176	19
20	33.0659 5410	34.8683 1801	36.7855 9120	38.8253 0867	20
21	35.7192 5181	37.7860 7550	39.9927 2668	42.3489 5373	21
22	38.5052 1440	40.8643 0965	43.3922 9028	46.1016 3573	22
23	41.4304 7512	44.1118 4669	46.9958 2769	50.0982 4205	23
24	44.5019 9887	47.5379 9825	50.8155 7735	54.3546 2778	24
25	47.7270 9882	51.1525 8816	54.8645 1200	58.8876 7859	25
26	51.1134 5376	54.9659 8051	59.1563 8272	63.7153 7769	26
27	54.6691 2645	58.9891 0943	63.7057 6568	68.8568 7725	27
28	58.4025 8277	63.2335 1045	68.5281 1162	74.3325 7427	28
29	62.3227 1191	67.7113 5353	73.6397 9832	80.1641 9159	29
30	66.4388 4750	72.4354 7797	79.0581 8622	86.3748 6405	30
31	70.7607 8988	77.4194 2926	84.8016 7739	92.9892 3021	31
32	75.2988 2937	82.6774 9787	90.8897 7803	100.0335 3017	32
33	80.0637 7084	88.2247 6025	97.3431 6471	107.5357 0963	33
34	85.0669 5938	94.0771 2207	104.1837 5460	115.5255 3076	34
35	90.3203 0735	100.2513 6378	111.4347 7987	124.0346 9026	35
36	95.8363 2272	106.7651 8879	119.1208 6666	133.0969 4513	36
37	101.6281 3886	113.6372 7417	127.2681 1866	142.7482 4656	37
38	107.7095 4580	120.8873 2425	135.9042 0578	153.0268 8259	38
39	114.0950 2309	128.5361 2708	145.0584 5813	163.9736 2995	39
40	120.7997 7424	136.6056 1407	154.7619 6562	175.6319 1590	40
41	127.8397 6295	145.1189 2285	165.0476 8356	188.0479 9044	41
42	135.2317 5110	154.1004 6360	175.9505 4457	201.2711 0981	42
43	142.9933 3866	163.5759 8910	187.5075 7724	215.3537 3195	43
44	151.1430 0559	173.5726 6850	199.7580 3188	230.3517 2453	44
45	159.7001 5587	184.1191 6527	212.7435 1379	246.3245 8662	45
46	168.6851 6366	195.2457 1936	226.5081 2462	263.3356 8475	46
47	178.1194 2185	206.9842 3392	241.0986 1210	281.4525 0426	47
48	188.0253 9294	219.3683 6679	256.5645 2882	300.7469 1704	48
49	198.4266 6259	232.4336 2696	272.9584 0055	321.2954 6665	49
50	209.3479 9572	246.2174 7645	290.3359 0458	343.1796 7198	50

Logarithm of Amount of 1 Per Annum at Compound Interest

$log\ s_{\overline{n}|}$

n	5%	5½%	6%	6½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.311 7539	0.312 8118	0.313 8672	0.314 9201	2
3	0.498 6551	0.500 7886	0.502 9185	0.505 0448	3
4	0.634 4898	0.637 7164	0.640 9399	0.644 1603	4
5	0.742 3819	0.746 7191	0.751 0552	0.755 3901	5
6	0.832 6310	0.838 0963	0.843 5640	0.849 0339	6
7	0.910 7316	0.917 3424	0.923 9606	0.930 5859	7
8	0.979 9628	0.987 7365	0.995 5241	1.003 3251	8
9	1.042 4402	1.051 3941	1.060 3697	1.069 3666	9
10	1.099 6079	1.109 7592	1.119 9416	1.130 1543	10
11	1.152 4959	1.163 8617	1.175 2694	1.186 7179	11
12	1.201 8647	1.214 4621	1.227 1136	1.239 8176	12
13	1.248 2917	1.262 1377	1.276 0512	1.290 0303	13
14	1.292 2258	1.307 3371	1.322 5308	1.337 8045	14
15	1.334 0226	1.350 4160	1.366 9077	1.383 4952	15
16	1.373 9687	1.391 6608	1.409 4686	1.427 3889	16
17	1.412 2959	1.431 3059	1.450 4475	1.469 7193	17
18	1.449 2065	1.469 5452	1.490 0379	1.510 6799	18
19	1.484 8549	1.506 5412	1.528 4023	1.550 4329	19
20	1.519 3811	1.542 4310	1.565 6778	1.589 1150	20
21	1.552 9024	1.577 3318	1.601 9810	1.626 8427	21
22	1.585 5195	1.611 3442	1.637 4126	1.663 7163	22
23	1.617 3199	1.644 5552	1.672 0593	1.699 8225	23
24	1.648 3795	1.677 0409	1.705 9969	1.735 2365	24
25	1.678 7650	1.708 8676	1.739 2915	1.770 0244	25
26	1.708 5353	1.740 0939	1.772 0016	1.804 2443	26
27	1.737 7421	1.770 7718	1.804 1787	1.837 9473	27
28	1.766 4321	1.800 9473	1.835 8688	1.871 1792	28
29	1.794 6464	1.830 6615	1.867 1126	1.903 9804	29
30	1.822 4221	1.859 9514	1.897 9468	1.936 3874	30
31	1.849 7927	1.888 8500	1.928 4045	1.968 4327	31
32	1.876 7882	1.917 3873	1.958 5150	2.000 1456	32
33	1.903 4361	1.945 5905	1.988 3054	2.031 5527	33
34	1.929 7609	1.973 4841	2.017 8000	2.062 6780	34
35	1.955 7854	2.001 0903	2.047 0207	2.093 5432	35
36	1.981 5302	2.028 4297	2.075 9879	2.124 1681	36
37	2.007 0140	2.055 5207	2.104 7196	2.154 5708	37
38	2.032 2544	2.082 3808	2.133 2329	2.184 7677	38
39	2.057 2667	2.109 0252	2.161 5431	2.214 7740	39
40	2.082 0661	2.135 4685	2.189 6642	2.244 6034	40
41	2.106 6660	2.161 7241	2.217 6094	2.274 2687	41
42	2.131 0786	2.187 8039	2.245 3906	2.303 7814	42
43	2.155 3158	2.213 7196	2.273 0188	2.333 1524	43
44	2.179 3880	2.239 4814	2.300 5042	2.362 3915	44
45	2.203 3053	2.265 0990	2.327 8563	2.391 5078	45
46	2.227 0769	2.290 5815	2.355 0838	2.420 5097	46
47	2.250 7113	2.315 9373	2.382 1947	2.449 4052	47
48	2.274 2165	2.341 1740	2.409 1966	2.478 2012	48
49	2.297 6000	2.366 2990	2.436 0965	2.506 9046	49
50	2.320 8688	2.391 3189	2.462 9008	2.535 5216	50

$$s_{\overline{n}|} = [(1+i)^n - 1] \div i$$

n	5%	5½%	6%	6½%	n
51	220.8153 9550	260.7594 3765	308.7560 5886	366.4863 5066	51
52	232.8561 6528	276.1012 0672	328.2814 2239	391.3079 6345	52
53	245.4989 7354	292.2867 7309	348.9783 0773	417.7429 8108	53
54	258.7739 2222	309.3625 4561	370.9170 0620	445.8962 7485	54
55	272.7126 1833	327.3774 8562	394.1720 2657	475.8795 3271	55
56	287.3482 4924	346.3832 4733	418.8223 4816	507.8117 0234	56
57	302.7156 6171	366.4343 2593	444.9516 8905	541.8194 6299	57
58	318.8514 4479	387.5882 1386	472.6487 9040	578.0377 2808	58
59	335.7940 1703	409.9055 6562	502.0077 1782	616.6101 8041	59
60	353.5837 1788	433.4503 7173	533.1281 8089	657.6898 4214	60
61	372.2629 0378	458.2901 4217	566.1158 7174	701.4396 8187	61
62	391.8760 4897	484.4960 9999	601.0828 2405	748.0332 6120	62
63	412.4698 5141	512.1433 8549	638.1477 9349	797.6554 2317	63
64	434.0933 4398	541.3112 7170	677.4366 6110	850.5030 2568	64
65	456.7980 1118	572.0833 9164	719.0828 6076	906.7857 2235	65
66	480.6379 1174	604.5479 7818	763.2278 3241	966.7267 9430	66
67	505.6698 0733	638.7981 1698	810.0215 0236	1030.5640 3593	67
68	531.9532 9770	674.9320 1341	859.6227 9250	1098.5506 9827	68
69	559.5509 6258	713.0532 7415	912.2001 6005	1170.9564 9365	69
70	588.5285 1071	753.2712 0423	967.9321 6965	1248.0686 6574	70
71	618.9549 3625	795.7011 2046	1027.0080 9983	1330.1931 2901	71
72	650.9026 8306	840.4646 8209	1089.6285 8582	1417.6556 8240	72
73	684.4478 1721	887.6902 3960	1156.0063 0097	1510.8033 0176	73
74	719.6702 0807	937.5132 0278	1226.3666 7903	1610.0055 1637	74
75	756.6537 1848	990.0764 2893	1300.9486 7977	1715.6558 7493	75
76	795.4864 0440	1045.5306 3252	1380.0056 0055	1828.1735 0681	76
77	836.2607 2462	1104.0348 1731	1463.8059 3659	1948.0047 8475	77
78	879.0737 6085	1165.7567 3226	1552.6342 9278	2075.6250 9576	78
79	924.0274 4889	1230.8733 5254	1646.7923 5035	2211.5407 2698	79
80	971.2288 2134	1299.5713 8693	1746.5998 9137	2356.2908 7423	80
81	1020.7902 6240	1372.0478 1321	1852.3958 8485	2510.4497 8106	81
82	1072.8297 7552	1448.5104 4294	1964.5396 3794	2674.6290 1683	82
83	1127.4712 6430	1529.1785 1730	2083.4120 1622	2849.4799 0292	83
84	1184.8448 2752	1614.2833 3575	2209.4167 3719	3035.6960 9661	84
85	1245.0870 6889	1704.0689 1921	2342.9817 4142	3234.0163 4289	85
86	1308.3414 2234	1798.7927 0977	2484.5606 4591	3445.2274 0518	86
87	1374.7584 9345	1898.7263 0881	2634.6342 8466	3670.1671 8652	87
88	1444.4964 1812	2004.1562 5579	2793.7123 4174	3909.7280 5364	88
89	1517.7212 3903	2115.3848 4986	2962.3350 8225	4164.8603 7713	89
90	1594.6073 0098	2232.7310 1660	3141.0751 8718	4436.5763 0164	90
91	1675.3376 6603	2356.5312 2252	3330.5396 9841	4725.9537 6125	91
92	1760.1045 4933	2487.1404 3976	3531.3720 8032	5034.1407 5573	92
93	1849.1097 7680	2624.9331 6394	3744.2544 0514	5362.3599 0485	93
94	1942.5652 6564	2770.3044 8796	3969.9096 6944	5711.9132 9867	94
95	2040.6935 2892	2923.6712 3480	4209.1042 4961	6084.1876 6308	95
96	2143.7282 0537	3085.4731 5271	4462.6505 0459	6480.6598 6118	96
97	2251.9146 1564	3256.1741 7611	4731.4095 3486	6902.9027 5216	97
98	2365.5103 4642	3436.2637 5580	5016.2941 0696	7352.5914 3105	98
99	2484.7858 6374	3626.2582 6237	5318.2717 5337	7831.5098 7406	99
100	2610.0251 5693	3826.7024 6680	5638.3680 5857	8341.5580 1588	100

Logarithm of Amount of 1 Per Annum at Compound Interest

$log\ s_{\overline{n}|}$

n	5%	5½%	6%	6½%	n
51	2.344 0293	2.416 2399	2.489 6155	2.564 0578	51
52	2.367 0877	2.441 0682	2.516 2462	2.592 5186	52
53	2.390 0497	2.465 8092	2.542 7983	2.620 9092	53
54	2.412 9205	2.490 4677	2.569 2767	2.649 2338	54
55	2.435 7052	2.515 0488	2.595 6858	2.677 4971	55
56	2.458 4084	2.539 5568	2.622 0297	2.705 7027	56
57	2.481 0349	2.563 9961	2.648 3128	2.733 8546	57
58	2.503 5883	2.588 3705	2.674 5385	2.761 9562	58
59	2.526 0729	2.612 6838	2.700 7103	2.790 0107	59
60	2.548 4922	2.636 9394	2.726 8316	2.818 0201	60
61	2.570 8497	2.661 1405	2.752 9053	2.845 9903	61
62	2.593 1486	2.685 2902	2.778 9343	2.873 9209	62
63	2.615 3922	2.709 3915	2.804 9213	2.901 8153	63
64	2.637 5831	2.733 4471	2.830 8686	2.929 6758	64
65	2.659 7242	2.757 4593	2.856 7789	2.957 5046	65
66	2.681 8180	2.781 4307	2.882 6541	2.985 3038	66
67	2.703 8670	2.805 3636	2.908 4965	3.013 0749	67
68	2.725 8735	2.829 2600	2.934 3079	3.040 8201	68
69	2.747 8396	2.853 1220	2.960 0901	3.068 5408	69
70	2.769 7674	2.876 9513	2.985 8449	3.096 2385	70
71	2.791 6590	2.900 7499	3.011 5737	3.123 9147	71
72	2.813 5160	2.924 5194	3.037 2785	3.151 5707	72
73	2.835 3403	2.948 2614	3.062 9602	3.179 2079	73
74	2.857 1335	2.971 9773	3.088 6203	3.206 8274	74
75	2.878 8971	2.995 6687	3.114 2602	3.234 4302	75
76	2.900 6328	3.019 3367	3.139 8809	3.262 0174	76
77	2.922 3416	3.042 9828	3.165 4835	3.289 5901	77
78	2.944 0253	3.066 6079	3.191 0692	3.317 1489	78
79	2.965 6848	3.090 2134	3.216 6389	3.344 6949	79
80	2.987 3215	3.113 8001	3.242 1935	3.372 2289	80
81	3.008 9366	3.137 3693	3.267 7338	3.399 7515	81
82	3.030 5308	3.160 9216	3.293 2608	3.427 2635	82
83	3.052 1055	3.184 4582	3.318 7751	3.454 7656	83
84	3.073 6614	3.207 9797	3.344 2776	3.482 2583	84
85	3.095 1997	3.231 4872	3.369 7689	3.509 7422	85
86	3.116 7210	3.254 9811	3.395 2496	3.537 2179	86
87	3.138 2264	3.278 4624	3.420 7204	3.564 6858	87
88	3.159 7164	3.301 9316	3.446 1817	3.592 1465	88
89	3.181 1920	3.325 3894	3.471 6342	3.619 6005	89
90	3.202 6538	3.348 8364	3.497 0784	3.647 0480	90
91	3.224 1024	3.372 2731	3.522 5146	3.674 4894	91
92	3.245 5384	3.395 7003	3.547 9435	3.701 9253	92
93	3.266 9627	3.419 1183	3.573 3653	3.729 3560	93
94	3.288 3756	3.442 5275	3.598 7807	3.756 7816	94
95	3.309 7778	3.465 9285	3.624 1896	3.784 2026	95
96	3.331 1697	3.489 3218	3.649 5929	3.811 6192	96
97	3.352 5519	3.512 7076	3.674 9906	3.839 0318	97
98	3.373 9249	3.536 0865	3.700 3830	3.866 4404	98
99	3.395 2889	3.559 4587	3.725 7705	3.893 8455	99
100	3.416 6447	3.582 8247	3.751 1534	3.921 2472	100

Amount of 1 per Annum at Compound Interest

$$s_n = [(1+i)^n - 1]/i$$

n	7%	7½%	8%	8½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	2.0700 0000	2.0750 0000	2.0800 0000	2.0850 0000	2
3	3.2149 0000	3.2306 2500	3.2464 0000	3.2622 2500	3
4	4.4399 4300	4.4729 2188	4.5061 1200	4.5395 1413	4
5	5.7507 3901	5.8083 9102	5.8666 0096	5.9253 7283	5
6	7.1532 9074	7.2440 2034	7.3359 2904	7.4290 2952	6
7	8.6540 2109	8.7873 2187	8.9228 0336	9.0604 9702	7
8	10.2598 0257	10.4463 7101	10.6366 2763	10.8306 3927	8
9	11.9779 8875	12.2298 4883	12.4875 5784	12.7512 4361	9
10	13.8164 4796	14.1470 8750	14.4865 6247	14.8350 9932	10
11	15.7835 9932	16.2081 1906	16.6454 8746	17.0960 8276	11
12	17.8884 5127	18.4237 2799	18.9771 2646	19.5492 4979	12
13	20.1406 4286	20.8055 0759	21.4952 9658	22.2109 3603	13
14	22.5504 8786	23.3659 2066	24.2149 2030	25.0988 6559	14
15	25.1290 2201	26.1183 6470	27.1521 1393	28.2322 6916	15
16	27.8880 5355	29.0772 4206	30.3242 8304	31.6320 1204	16
17	30.8402 1730	32.2580 3521	33.7502 2569	35.3207 3306	17
18	33.9990 3251	35.6773 8785	37.4502 4374	39.3229 9538	18
19	37.3789 6479	39.3531 9194	41.4462 6324	43.6654 4998	19
20	40.9954 9232	43.3046 8134	45.7619 6430	48.3770 1323	20
21	44.8651 7678	47.5525 3244	50.4229 2144	53.4890 5936	21
22	49.0057 3916	52.1189 7237	55.4567 5516	59.0356 2940	22
23	53.4361 4090	57.0278 9530	60.8932 9557	65.0536 5790	23
24	58.1766 7076	62.3049 8744	66.7647 5922	71.5832 1882	24
25	63.2490 3772	67.9778 6150	73.1059 3995	78.6677 9242	25
26	68.6764 7036	74.0762 0112	79.9544 1515	86.3545 5478	26
27	74.4838 2328	80.6319 1620	87.3507 6836	94.6946 9193	27
28	80.6976 9091	87.6793 0991	95.3388 2983	103.7437 4075	28
29	87.3465 2927	95.2552 5816	103.9659 3622	113.5619 5871	29
30	94.4607 8632	103.3994 0252	113.2832 1111	124.2147 2520	30
31	102.0730 4137	112.1543 5771	123.3458 6800	135.7729 7684	31
32	110.2181 5426	121.5659 3454	134.2135 3744	148.3136 7987	32
33	118.9334 2506	131.6833 7963	145.9506 2044	161.9203 4266	33
34	128.2587 6481	142.5596 3310	158.6266 7007	176.6835 7179	34
35	138.2368 7835	154.2516 0558	172.3168 0368	192.7016 7539	35
36	148.9134 5984	166.8204 7600	187.1021 4797	210.0813 1780	36
37	160.3374 0202	180.3320 1170	203.0703 1981	228.9382 2981	37
38	172.5610 2017	194.8569 1258	220.3159 4540	249.3979 7935	38
39	185.6402 9158	210.4711 8102	238.9412 2103	271.5968 0759	39
40	199.6351 1199	227.2565 1960	259.0565 1871	295.6825 3624	40
41	214.6095 6983	245.3007 5857	280.7810 4021	321.8155 5182	41
42	230.6322 3972	264.6983 1546	304.2435 2342	350.1698 7372	42
43	247.7764 9650	285.5506 8912	329.5830 0530	380.9343 1299	43
44	266.1208 5125	307.9669 9080	356.9496 4572	414.3137 2959	44
45	285.7493 1084	332.0645 1511	386.5056 1738	450.5303 9661	45
46	306.7517 6260	357.9693 5375	418.4260 6677	489.8254 8032	46
47	329.2243 8598	385.8170 5528	452.9001 5211	532.4606 4615	47
48	353.2700 9300	415.7533 3442	490.1321 6428	578.7198 0107	48
49	378.9989 9951	447.9348 3451	530.3427 3742	628.9109 8416	49
50	406.5289 2947	482.5299 4709	573.7701 5642	683.3684 1782	50

Logarithm of Amount of 1 Per Annum at Compound Interest

$log\ s_n$

n	7%	7½%	8%	8½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	0.315 9703	0.317 0181	0.318 0633	0.319 1061	2
3	0.507 1675	0.509 2866	0.511 4020	0.513 5139	3
4	0.647 3774	0.650 5913	0.653 8020	0.657 0094	4
5	0.759 7236	0.764 0558	0.768 3866	0.772 7157	5
6	0.854 5058	0.859 9796	0.865 4551	0.870 9321	6
7	0.937 2180	0.943 8566	0.950 5014	0.957 1521	7
8	1.011 1390	1.018 9654	1.026 8040	1.034 6541	8
9	1.078 3839	1.087 4211	1.096 4775	1.105 5525	9
10	1.140 3964	1.150 6671	1.160 9654	1.171 2905	10
11	1.198 2061	1.209 7326	1.221 2965	1.232 8966	11
12	1.252 5728	1.265 3775	1.278 2305	1.291 1301	12
13	1.304 0733	1.318 1783	1.332 3434	1.346 5669	13
14	1.353 1559	1.368 5829	1.384 0831	1.399 6541	14
15	1.400 1756	1.416 9460	1.433 8036	1.450 7457	15
16	1.445 4182	1.463 5532	1.481 7905	1.500 1269	16
17	1.489 1175	1.508 6379	1.528 2767	1.548 0297	17
18	1.531 4665	1.552 3930	1.573 4546	1.594 6465	18
19	1.572 6273	1.594 9799	1.617 4854	1.640 1380	19
20	1.612 7361	1.636 5348	1.660 5047	1.684 6390	20
21	1.651 9094	1.677 1736	1.702 6280	1.728 2650	21
22	1.690 2470	1.716 9959	1.743 9545	1.771 1142	22
23	1.727 8351	1.756 0873	1.784 5695	1.813 2717	23
24	1.764 7489	1.794 5228	1.824 5473	1.854 8112	24
25	1.801 0539	1.832 3675	1.863 9526	1.895 7970	25
26	1.836 8080	1.869 6787	1.902 8424	1.936 2853	26
27	1.872 0620	1.906 5069	1.941 2667	1.976 3256	27
28	1.906 8611	1.942 8971	1.979 2698	2.015 9619	28
29	1.941 2456	1.978 8890	2.016 8911	2.055 2329	29
30	1.975 2515	2.014 5180	2.054 1655	2.094 1731	30
31	2.008 9111	2.049 8162	2.091 1246	2.132 8133	31
32	2.042 2531	2.084 8118	2.127 7963	2.171 1812	32
33	2.075 3039	2.119 5310	2.164 2059	2.209 3014	33
34	2.108 0870	2.153 9966	2.200 3762	2.247 1962	34
35	2.140 6239	2.188 2297	2.236 3276	2.284 8855	35
36	2.172 9340	2.222 2493	2.272 0788	2.322 3874	36
37	2.205 0349	2.256 0728	2.307 6465	2.359 7183	37
38	2.236 9427	2.289 7158	2.343 0459	2.396 8929	38
39	2.268 6723	2.323 1926	2.378 2911	2.433 9247	39
40	2.300 2369	2.356 5164	2.413 3946	2.470 8256	40
41	2.331 6491	2.389 6989	2.448 3678	2.507 6070	41
42	2.362 9200	2.422 7511	2.483 2213	2.544 2787	42
43	2.394 0600	2.455 6832	2.517 9648	2.580 8501	43
44	2.425 0789	2.488 5042	2.552 6070	2.617 3293	44
45	2.455 9852	2.521 2225	2.587 1558	2.653 7341	45
46	2.486 7871	2.553 8458	2.621 6187	2.690 0414	46
47	2.517 4920	2.586 3814	2 656 0024	2.726 2875	47
48	2.548 1069	2.618 8358	2.690 3132	2.762 4684	48
49	2.578 6281	2.651 2148	2.724 5566	2.798 5892	49
50	2.609 0915	2.683 5243	2.758 7379	2.834 6549	50

Amount of 1 per Annum at Compound Interest

$$s_{\overline{n}|} = [(1+i)^n - 1]/i$$

n	7%	7½%	8%	8½%	n
51	435.9859 5454	519.7196 9313	620.6717 6893	742.4547 3333	51
52	467.5049 7135	559.6986 7011	671.3255 1044	806.5633 8566	52
53	501.2303 1935	602.6760 7037	726.0315 5128	876.1212 7345	53
54	537.3164 4170	648.8767 7565	785.1140 7538	951.5915 8169	54
55	575.9285 9262	698.5425 3382	848.9232 0141	1033.4768 6613	55
56	617.2435 9410	751.9332 2386	917.8370 5752	1122.3223 9975	56
57	661.4506 4569	809.3282 1564	992.2640 2213	1218.7198 0373	57
58	708.7521 9089	871.0278 3182	1072.6451 4390	1323.3109 8705	58
59	759.3648 4425	937.3549 1920	1159.4567 5541	1436.7924 2095	59
60	813.5203 8335	1008.6565 3814	1253.2132 9584	1559.9197 7673	60
61	871.4668 1019	1085.3057 7851	1354.4703 5951	1693.5129 5775	61
62	933.4694 8690	1167.7037 1189	1463.8279 8827	1838.4615 5916	62
63	999.8123 5098	1256.2814 9029	1581.9342 2733	1995.7307 9169	63
64	1070.7992 1555	1351.5026 0206	1709.4889 6552	2166.3679 0898	64
65	1146.7551 6064	1453.8652 9721	1847.2480 8276	2351.5091 8125	65
66	1228.0280 2188	1563.9051 9450	1996.0279 2938	2552.3874 6165	66
67	1314.9899 8341	1682.1980 8409	2156.7101 6373	2770.3403 9589	67
68	1408.0392 8225	1809.3629 4040	2330.2469 7683	3006.8193 2954	68
69	1507.6020 3201	1946.0651 6093	2517.6667 3497	3263.3989 7255	69
70	1614.1341 7425	2093.0200 4800	2720.0800 7377	3541.7878 8522	70
71	1728.1235 6645	2250.9965 5160	2938.6864 7967	3843.8398 5546	71
72	1850.0922 1610	2420.8212 9296	3174.7813 9805	4171.5662 4318	72
73	1980.5986 7123	2603.3828 8994	3429.7639 0989	4527.1493 7385	73
74	2120.2405 7821	2799.6366 0668	3705.1450 2268	4912.9570 7063	74
75	2269.6574 1869	3010.6093 5218	4002.5566 2449	5331.5584 2163	75
76	2429.5334 3800	3237.4050 5360	4323.7611 5445	5785.7408 8747	76
77	2600.6007 7866	3481.2104 3262	4670.6620 4681	6278.5288 6290	77
78	2783.6428 3316	3743.3012 1506	5045.3150 1056	6813.2038 1625	78
79	2979.4978 3148	4025.0488 0619	5449.9402 1140	7393.3261 4063	79
80	3189.0626 7969	4327.9274 6666	5886.9354 2831	8022.7588 6259	80
81	3413.2970 6727	4653.5220 2666	6358.8902 6258	8705.6933 6591	81
82	3653.2278 6198	5003.5361 7866	6868.6014 8358	9446.6773 0201	82
83	3909.9538 1231	5379.8013 9206	7419.0896 0227	10250.6448 7268	83
84	4184.6505 7918	5784.2864 9646	8013.6167 7045	11122.9496 8686	84
85	4478.5761 1972	6219.1079 8369	8655.7061 1209	12069.4004 1024	85
86	4793.0764 4810	6686.5410 8247	9349.1626 0105	13096.2994 4511	86
87	5129.5917 9946	7189.0316 6366	10098.0956 0914	14210.4848 9794	87
88	5489.6632 2543	7729.2090 3843	10906.9432 5787	15419.3761 1427	88
89	5874.9396 5121	8309.8997 1631	11780.4987 1850	16731.0230 8398	89
90	6287.1854 2679	8934.1421 9504	12723.9386 1598	18154.1600 4612	90
91	6728.2884 0667	9605.2028 5966	13742.8537 0526	19698.2636 5004	91
92	7200.2685 9513	10326.5930 7414	14843.2820 0168	21373.6160 6029	92
93	7705.2873 9679	11102.0875 5470	16031.7445 6181	23191.3734 2542	93
94	8245.6575 1457	11935.7441 2130	17315.2841 2676	25163.6401 6658	94
95	8823.8535 4059	12831.9249 3040	18701.5068 5690	27303.5495 8074	95
96	9442.5232 8843	13795.3193 0018	20198.6274 0545	29625.3512 9510	96
97	10104.4999 1862	14830.9682 4769	21815.5175 9788	32144.5061 5518	97
98	10812.8149 1292	15944.2908 6627	23561.7590 0572	34877.7891 7837	98
99	11570.7119 5683	17141.1126 8124	25447.6997 2617	37843.4012 5853	99
100	12381.6617 9381	18427.6961 3233	27484.5157 0427	41061.0903 6551	100

$log\ s_{\overline{n}|}$

n	7%	7½%	8%	8½%	n
51	2.639 4725	2.715 7691	2.792 8620	2.870 6700	51
52	2.669 7862	2.747 9543	2.826 9332	2.906 6385	52
53	2.700 0373	2.780 0840	2.860 9555	2.942 5642	53
54	2.730 2300	2.812 1622	2.894 9327	2.978 4506	54
55	2.760 3686	2.844 1929	2.928 8684	3.014 3008	55
56	2.790 4566	2.876 1793	2.962 7656	3.050 1177	56
57	2.820 4973	2.908 1247	2.996 6273	3.085 9038	57
58	2.850 4944	2.940 0320	3.030 4561	3.121 6619	58
59	2.880 4504	2.971 9041	3.064 2546	3.157 3940	59
60	2.910 3684	3.003 7433	3.098 0250	3.193 1023	60
61	2.940 2508	3.035 5521	3.131 7695	3.228 7885	61
62	2.970 1001	3.067 3327	3.165 4900	3.264 4545	62
63	2.999 9185	3.099 0870	3.199 1884	3.300 1020	63
64	3.029 7081	3.130 8169	3.232 8663	3.335 7322	64
65	3.059 4707	3.162 5242	3.266 5252	3.371 3467	65
66	3.089 2082	3.194 2104	3.300 1666	3.406 9466	66
67	3.118 9224	3.225 8771	3.333 7918	3.442 5331	67
68	3.148 6148	3.257 5257	3.367 4019	3.478 1073	68
69	3.178 2866	3.289 1574	3.400 9982	3.513 6702	69
70	3.207 9396	3.320 7734	3.434 5817	3.549 2225	70
71	2.237 5748	3.352 3748	3.468 1533	3.584 7653	71
72	3.267 1934	3.383 9627	3.501 7138	3.620 2992	72
73	3.296 7965	3.415 5380	3.535 2642	3.655 8248	73
74	3.326 3851	3.447 1017	3.568 8052	3.691 3430	74
75	3.355 9603	3.478 6545	3.602 3375	3.726 8542	75
76	3.385 5229	3.510 1971	3.635 8617	3.762 3590	76
77	3.415 0736	3.541 7303	3.669 3785	3.797 8579	77
78	3.444 6135	3.573 2547	3.702 8883	3.833 3513	78
79	3.474 1431	3.604 7712	3.736 3917	3.868 8398	79
80	3.503 6630	3.636 2800	3.769 8893	3.904 3238	80
81	3.533 1741	3.667 7818	3.803 3813	3.939 8035	81
82	3.562 6767	3.699 2770	3.836 8683	3.975 2791	82
83	3.592 1716	3.730 7662	3.870 3506	4.010 7512	83
84	3.621 6592	3.762 2498	3.903 8286	4.046 2199	84
85	3.651 1400	3.793 7281	3.937 3025	4.081 6857	85
86	3.680 6144	3.825 2015	3.970 7727	4.117 1486	86
87	3.710 0828	3.856 6704	4.004 2395	4.152 6089	87
88	3.739 5478	3.888 1350	4.037 7030	4.188 0668	88
89	3.769 0034	3.919 5958	4.071 1637	4.223 5225	89
90	3.798 4563	3.951 0529	4.104 6216	4.258 9761	90
91	3.827 9046	3.982 5065	4.138 0769	4.294 4279	91
92	3.857 3487	4.013 9571	4.171 5299	4.329 8780	92
93	3.886 7889	4.045 4046	4.204 9808	4.365 3265	93
94	3.916 2253	4.076 8495	4.238 4296	4.400 7735	94
95	3.945 6583	4.108 2919	4.271 8766	4.436 2191	95
96	3.975 0881	4.139 7317	4.305 3219	4.471 6635	96
97	4.004 5148	4.171 1695	4.338 7655	4.507 1067	97
98	4.033 9388	4.202 6052	4.372 2077	4.542 5490	98
99	4.063 3601	4.234 0391	4.405 6486	4.577 9902	99
100	4.092 7789	4.265 4710	4.439 0880	4.613 4305	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.9975 0623	0.9970 9182	0.9966 7774	0.9958 5062	1
2	1.9925 2492	1.9912 8390	1.9900 4426	1.9875 6908	2
3	2.9850 6227	2.9825 8470	2.9801 1056	2.9751 7253	3
4	3.9751 2446	3.9710 0260	3.9668 8760	3.9586 7804	4
5	4.9627 1766	4.9565 4601	4.9503 8631	4.9381 0261	5
6	5.9478 4804	5.9392 2327	5.9306 1759	5.9134 6318	6
7	6.9305 2174	6.9190 4273	6.9075 9228	6.8847 7661	7
8	7.9107 4487	7.8960 1269	7.8813 2121	7.8520 5969	8
9	8.8885 2357	8.8701 4144	8.8518 1516	8.8153 2915	9
10	9.8638 6391	9.8414 3725	9.8190 8487	9.7746 0164	10
11	10.8367 7198	10.8099 0834	10.7831 4107	10.7298 9374	11
12	11.8072 5384	11.7755 6295	11.7439 9442	11.6812 2198	12
13	12.7753 1555	12.7384 0915	12.7016 5557	12.6286 0280	13
14	13.7409 6314	13.6984 5542	13.6561 3512	13.5720 5257	14
15	14.7042 0264	14.6557 0959	14.6074 4364	14.5115 8762	15
16	15.6650 4004	15.6101 7990	15.5555 9167	15.4472 2418	16
17	16.6234 8133	16.5618 7442	16.5005 8970	16.3789 7843	17
18	17.5795 3250	17.5108 0125	17.4424 4821	17.3068 6648	18
19	18.5331 9950	18.4569 6842	18.3811 7762	18.2309 0438	19
20	19.4844 8828	19.4003 8396	19.3167 8832	19.1511 0809	20
21	20.4334 0477	20.3410 5587	20.2492 9069	20.0674 9352	21
22	21.3799 5488	21.2789 9213	21.1786 9504	20.9800 7653	22
23	22.3241 4452	22.2142 0071	22.1050 1167	21.8888 7289	23
24	23.2659 7957	23.1466 8952	23.0282 5083	22.7938 9831	24
25	24.2054 6591	24.0764 6648	23.9484 2275	23.6951 6843	25
26	25.1426 0939	25.0035 3949	24.8655 3763	24.5926 9884	26
27	26.0774 1585	25.9279 1639	25.7796 0561	25.4865 0506	27
28	27.0098 9112	26.8496 0503	26.6906 3682	26.3766 0254	28
29	27.9400 4102	27.7686 1324	27.5986 4135	27.2630 0668	29
30	28.8678 7134	28.6849 4879	28.5036 2925	28.1457 3278	30
31	29.7933 8787	29.5986 1947	29.4056 1055	29.0247 9612	31
32	30.7165 9638	30.5096 3303	30.3045 9523	29.9002 1189	32
33	31.6375 0262	31.4179 9720	31.2005 9325	30.7719 9524	33
34	32.5561 1234	32.3237 1967	32.0936 1454	31.6401 6122	34
35	33.4724 3126	33.2268 0814	32.9836 6898	32.5047 2486	35
36	34.3864 6510	34.1272 7025	33.8707 6642	33.3657 0109	36
37	35.2982 1955	35.0251 1366	34.7549 1670	34.2231 0481	37
38	36.2077 0030	35.9203 4597	35.6361 2960	35.0769 5084	38
39	37.1149 1302	36.8129 7478	36.5144 1488	35.9272 5394	39
40	38.0198 6336	37.7030 0767	37.3897 8228	36.7740 2881	40
41	38.9225 5697	38.5904 5217	38.2622 4147	37.6172 9009	41
42	39.8229 9947	39.4753 1582	39.1318 0213	38.4570 5236	42
43	40.7211 9648	40.3576 0612	39.9984 7388	39.2933 3013	43
44	41.6171 5359	41.2373 3056	40.8622 6633	40.1261 3788	44
45	42.5108 7640	42.1144 9659	41.7231 8903	40.9554 8999	45
46	43.4023 7047	42.9891 1167	42.5812 5153	41.7814 0081	46
47	44.2916 4137	43.8611 8320	43.4364 6332	42.6038 8461	47
48	45.1786 9463	44.7307 1859	44.2888 3387	43.4229 5562	48
49	46.0635 3580	45.5977 2521	45.1383 7263	44.2386 2799	49
50	46.9461 7037	46.4622 1042	45.9850 8900	45.0509 1582	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	9.998 9156	9.998 7352	9.998 5547	9.998 1942	1
2	0.299 4037	0.299 1332	0.298 8627	0.298 3222	2
3	0.474 9534	0.474 5928	0.474 2323	0.473 5122	3
4	0.599 3508	0.598 9002	0.598 4499	0.597 5502	4
5	0.695 7196	0.695 1791	0.694 6391	0.693 5601	5
6	0.774 3599	0.773 7297	0.773 0999	0.771 8419	6
7	0.840 7659	0.840 0460	0.839 3267	0.837 8898	7
8	0.898 2174	0.897 4078	0.896 5991	0.894 9836	8
9	0.948 8297	0.947 9305	0.947 0323	0.945 2385	9
10	0.994 0471	0.993 0585	0.992 0710	0.990 0991	10
11	1.034 9000	1.033 8220	1.032 7453	1.030 5954	11
12	1.072 1489	1.070 9817	1.069 8158	1.067 4883	12
13	1.106 3716	1.105 1151	1.103 8603	1.101 3553	13
14	1.138 0171	1.136 6716	1.135 3278	1.132 6456	14
15	1.167 4415	1.166 0069	1.164 5742	1.161 7149	15
16	1.194 9315	1.193 4079	1.191 8865	1.188 8504	16
17	1.220 7220	1.219 1095	1.217 4995	1.214 2868	17
18	1.245 0074	1.243 3060	1.241 6075	1.238 2184	18
19	1.267 9504	1.266 1603	1.264 3733	1.260 8082	19
20	1.289 6890	1.287 8103	1.285 9349	1.282 1939	20
21	1.310 3407	1.308 3735	1.306 4098	1.302 4932	21
22	1.330 0068	1.327 9510	1.325 8992	1.321 8071	22
23	1.348 7748	1.346 6307	1.344 4907	1.340 2234	23
24	1.366 7213	1.364 4889	1.362 2609	1.357 8186	24
25	1.383 9134	1.381 5927	1.379 2769	1.374 6598	25
26	1.400 4103	1.398 0015	1.395 5979	1.390 8062	26
27	1.416 2645	1.413 7676	1.411 2763	1.406 3103	27
28	1.431 5228	1.428 9379	1.426 3589	1.421 2188	28
29	1.446 2270	1.443 5542	1.440 8877	1.435 5737	29
30	1.460 4148	1.457 6541	1.454 9002	1.449 4126	30
31	1.474 1199	1.471 2714	1.468 4302	1.462 7692	31
32	1.487 3731	1.484 4370	1.481 5085	1.475 6743	32
33	1.500 2022	1.497 1785	1.494 1628	1.488 1556	33
34	1.512 6325	1.509 5213	1.506 4186	1.500 2387	34
35	1.524 6873	1.521 4886	1.518 2990	1.511 9465	35
36	1.536 3876	1.533 1015	1.529 8250	1.523 3002	36
37	1.547 7528	1.544 3795	1.541 0163	1.534 3194	37
38	1.558 8009	1.555 3405	1.551 8906	1.545 0218	38
39	1.569 5485	1.566 0009	1.562 4643	1.555 4240	39
40	1.580 0105	1.576 3760	1.572 7529	1.565 5412	40
41	1.590 2013	1.586 4799	1.582 7704	1.575 3875	41
42	1.600 1340	1.596 3256	1.592 5298	1.584 9760	42
43	1.609 8205	1.605 9254	1.602 0434	1.594 3188	43
44	1.619 2724	1.615 2906	1.611 3224	1.603 4274	44
45	1.628 5000	1.624 4316	1.620 3775	1.612 3121	45
46	1.637 5134	1.633 3584	1.629 2185	1.620 9830	46
47	1.646 3218	1.642 0803	1.637 8544	1.629 4492	47
48	1.654 9337	1.650 6059	1.646 2943	1.637 7194	48
49	1.663 3572	1.658 9432	1.654 5459	1.645 8017	49
50	1.671 6002	1.667 0999	1.662 6170	1.653 7036	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	47.8266 0386	47.3241 8154	46.8289 9236	45.8598 3317	51
52	48.7048 4176	48.1836 4589	47.6700 9205	46.6653 9401	52
53	49.5808 8953	49.0406 1076	48.5083 9739	47.4676 1228	53
54	50.4547 5265	49.8950 8341	49.3439 1767	48.2665 0184	54
55	51.3264 3656	50.7470 7110	50.1766 6213	49.0620 7651	55
56	52.1959 4669	51.5965 8106	51.0066 3999	49.8543 5003	56
57	53.0632 8847	52.4436 2048	51.8338 6046	50.6433 3612	57
58	53.9284 6730	53.2881 9656	52.6583 3268	51.4290 4840	58
59	54.7914 8858	54.1303 1645	53.4800 6580	52.2115 0046	59
60	55.6523 5769	54.9699 8730	54.2990 6890	52.9907 0584	60
61	56.5110 7999	55.8072 1623	55.1153 5106	53.7666 7800	61
62	57.3676 6083	56.6420 1035	55.9289 2133	54.5394 3035	62
63	58.2221 0557	57.4743 7673	56.7397 8870	55.3089 7627	63
64	59.0744 1952	58.3043 2244	57.5479 6216	56.0753 2905	64
65	59.9246 0800	59.1318 5451	58.3534 5065	56.8385 0194	65
66	60.7726 7631	59.9569 7996	59.1562 6311	57.5985 0814	66
67	61.6186 2974	60.7797 0580	59.9564 0842	58.3553 6078	67
68	62.4624 7355	61.6000 3900	60.7538 9543	59.1090 7296	68
69	63.3042 1302	62.4179 8652	61.5487 3299	59.8596 5770	69
70	64.1438 5339	63.2335 5529	62.3409 2989	60.6071 2798	70
71	64.9813 9989	64.0467 5224	63.1304 9490	61.3514 9672	71
72	65.8168 5774	64.8575 8427	63.9174 3678	62.0927 7680	72
73	66.6502 3216	65.6660 5824	64.7017 6423	62.8309 8103	73
74	67.4815 2834	66.4721 8103	65.4834 8595	63.5661 2216	74
75	68.3107 5146	67.2759 5945	66.2626 1058	64.2982 1292	75
76	69.1379 0670	68.0774 0035	67.0391 4676	65.0272 6596	76
77	69.9629 9920	68.8765 1050	67.8131 0308	65.7532 9388	77
78	70.7860 3411	69.6732 9670	68.5844 8812	66.4763 0924	78
79	71.6070 1657	70.4677 6569	69.3533 1042	67.1963 2453	79
80	72.4259 5169	71.2599 2422	70.1195 7849	67.9133 5221	80
81	73.2428 4458	72.0497 7901	70.8833 0082	68.6274 0467	81
82	74.0577 0033	72.8373 3675	71.6444 8587	69.3384 9426	82
83	74.8705 2402	73.6226 0413	72.4031 4206	70.0466 3326	83
84	75.6813 2072	74.4055 8781	73.1592 7780	70.7518 3393	84
85	76.4900 9548	75.1862 9442	73.9129 0146	71.4541 0846	85
86	77.2968 5335	75.9647 3060	74.6640 2139	72.1534 6898	86
87	78.1015 9935	76.7409 0294	75.4126 4591	72.8499 2759	87
88	78.9043 3850	77.5148 1803	76.1587 8329	73.5434 9633	88
89	79.7050 7581	78.2864 8243	76.9024 4182	74.2341 8720	89
90	80.5038 1627	79.0559 0268	77.6436 2972	74.9220 1212	90
91	81.3005 6486	79.8230 8532	78.3823 5520	75.6069 8300	91
92	82.0953 2654	80.5880 3685	79.1186 2645	76.2891 1168	92
93	82.8881 0628	81.3507 6377	79.8524 5161	76.9684 0995	93
94	83.6789 0900	82.1112 7253	80.5838 3882	77.6448 8955	94
95	84.4677 3966	82.8695 6959	81.3127 9616	78.3185 6218	95
96	85.2546 0315	83.6256 6138	82.0393 3172	78.9894 3950	96
97	86.0395 0439	84.3795 5432	82.7634 5354	79.6575 3308	97
98	86.8224 4827	85.1312 5480	83.4851 6964	80.3228 5450	98
99	87.6034 3967	85.8807 6919	84.2044 8802	80.9854 1524	99
100	88.3824 8346	86.6281 0386	84.9214 1663	81.6452 2677	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	1.679 6695	1.675 0831	1.670 5148	1.661 4326	51
52	1.687 5721	1.682 8997	1.678 2460	1.668 9950	52
53	1.695 3143	1.690 5559	1.685 8169	1.676 3974	53
54	1.702 9021	1.698 0577	1.693 2337	1.683 6458	54
55	1.710 3411	1.705 4110	1.700 5018	1.690 7459	55
56	1.717 6368	1.712 6209	1.707 6267	1.697 7030	56
57	1.724 7942	1.719 6926	1.714 6135	1.704 5223	57
58	1.731 8181	1.726 6310	1.721 4671	1.711 2085	58
59	1.738 7131	1.733 4406	1.728 1919	1.717 7662	59
60	1.745 4836	1.740 1256	1.734 7924	1.724 1997	60
61	1.752 1336	1.746 6904	1.741 2726	1.730 5132	61
62	1.758 6671	1.753 1387	1.747 6365	1.736 7106	62
63	1.765 0879	1.759 4743	1.753 8877	1.742 7956	63
64	1.771 3995	1.765 7008	1.760 0299	1.748 7718	64
65	1.777 6052	1.771 8215	1.766 0665	1.754 6426	65
66	1.783 7084	1.777 8398	1.772 0007	1.760 4112	66
67	1.789 7120	1.783 7586	1.777 8356	1.766 0808	67
68	1.795 6192	1.789 5810	1.783 5741	1.771 6541	68
69	1.801 4326	1.795 3097	1.789 2191	1.777 1342	69
70	1.807 1550	1.800 9476	1.794 7733	1.782 5237	70
71	1.812 7891	1.806 4971	1.800 2392	1.787 8251	71
72	1.818 3372	1.811 9608	1.805 6194	1.793 0410	72
73	1.823 8017	1.817 3410	1.810 9161	1.798 1739	73
74	1.829 1849	1.822 6399	1.816 1318	1.803 2257	74
75	1.834 4890	1.827 8599	1.821 2685	1.808 1989	75
76	1.839 7162	1.833 0030	1.826 3285	1.813 0955	76
77	1.844 8684	1.838 0711	1.831 3137	1.817 9175	77
78	1.849 9476	1.843 0663	1.836 2259	1.822 6669	78
79	1.854 9556	1.847 9905	1.841 0672	1.827 3455	79
80	1.859 8942	1.852 8453	1.845 8393	1.831 9552	80
81	1.864 7652	1.857 6327	1.850 5439	1.836 4976	81
82	1.869 5702	1.862 3540	1.855 1828	1.840 9744	82
83	1.874 3108	1.867 0112	1.859 7575	1.845 3872	83
84	1.878 9887	1.871 6056	1.864 2694	1.849 7377	84
85	1.883 6052	1.876 1387	1.868 7202	1.854 0272	85
86	1.888 1618	1.880 6120	1.873 1114	1.858 2572	86
87	1.892 6600	1.885 0269	1.877 4442	1.862 4292	87
88	1.897 1009	1.889 3848	1.881 7200	1.866 5442	88
89	1.901 4860	1.893 6868	1.885 9401	1.870 6040	89
90	1.905 8165	1.897 9343	1.890 1058	1.874 6095	90
91	1.910 0936	1.902 1285	1.894 2183	1.878 5619	91
92	1.914 3184	1.906 2706	1.898 2787	1.882 4625	92
93	1.918 4923	1.910 3616	1.902 2882	1.886 3125	93
94	1.922 6160	1.914 4027	1.906 2479	1.890 1129	94
95	1.926 6909	1.918 3951	1.910 1589	1.893 8647	95
96	1.930 7179	1.922 3395	1.914 0222	1.897 5690	96
97	1.934 6979	1.926 2372	1.917 8386	1.901 2268	97
98	1.938 6320	1.930 0890	1.921 6094	1.904 8391	98
99	1.942 5212	1.933 8959	1.925 3352	1.908 4068	99
100	1.946 3662	1.937 6587	1.929 0172	1.911 9308	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	89.1595 8450	87.3732 6514	85.6359 6344	82.3023 0049	101
102	89.9347 4763	88.1162 5935	86.3481 3635	82.9566 4777	102
103	90.7079 7768	88.8570 9280	87.0579 4323	83.6082 7991	103
104	91.4792 7948	89.5957 7177	87.7653 9195	84.2572 0818	104
105	92.2486 5784	90.3323 0252	88.4704 9034	84.9034 4381	105
106	93.0161 1755	91.0666 9131	89.1732 4621	85.5469 9795	106
107	93.7816 6339	91.7989 4436	89.8736 6735	86.1878 8175	107
108	94.5453 0014	92.5290 6788	90.5717 6150	86.8261 0628	108
109	95.3070 3256	93.2570 6806	91.2675 3641	87.4616 8258	109
110	96.0668 6539	93.9829 5109	91.9609 9977	88.0946 2163	110
111	96.8248 0338	94.7067 2312	92.6521 5927	88.7249 3437	111
112	97.5808 5126	95.4283 9028	93.3410 2255	89.3526 3171	112
113	98.3350 1372	96.1479 5870	94.0275 9726	89.9777 2450	113
114	99.0872 9548	96.8654 3448	94.7118 9098	90.6002 2354	114
115	99.8377 0123	97.5808 2372	95.3939 1131	91.2201 3959	115
116	100.5862 3564	98.2941 3246	96.0736 6578	91.8374 8338	116
117	101.3329 0338	99.0053 6678	96.7511 6194	92.4522 6558	117
118	102.0777 0911	99.7145 3269	97.4264 0727	93.0644 9681	118
119	102.8206 5747	100.4216 3621	98.0994 0927	93.6741 8767	119
120	103.5617 5308	101.1266 8335	98.7701 7538	94.2813 4869	120
121	104.3010 0058	101.8296 8009	99.4387 1304	94.8859 9036	121
122	105.0384 0457	102.5306 3237	100.1050 2964	95.4881 2315	122
123	105.7739 6965	103.2295 4616	100.7691 3256	96.0877 5747	123
124	106.5077 0040	103.9264 2738	101.4310 2916	96.6849 0367	124
125	107.2396 0139	104.6212 8194	102.0907 2677	97.2795 7209	125
126	107.9696 7720	105.3141 1573	102.7482 3269	97.8717 7301	126
127	108.6979 3237	106.0049 3464	103.4035 5420	98.4615 1666	127
128	109.4243 7144	106.6937 4451	104.0566 9857	99.0488 1324	128
129	110.1489 9894	107.3805 5120	104.7076 7303	99.6336 7290	129
130	110.8718 1939	108.0653 6053	105.3564 8478	100.2161 0576	130
131	111.5928 3730	108.7481 7831	106.0031 4101	100.7961 2189	131
132	112.3120 5716	109.4290 1032	106.6476 4888	101.3737 3131	132
133	113.0294 8345	110.1078 6235	107.2900 1552	101.9489 4401	133
134	113.7451 2065	110.7847 4016	107.9302 4806	102.5217 6994	134
135	114.4589 7321	111.4596 4947	108.5683 5358	103.0922 1899	135
136	115.1710 4560	112.1325 9603	109.2043 3915	103.6603 0104	136
137	115.8813 4224	112.8035 8553	109.8382 1181	104.2260 2590	137
138	116.5898 6758	113.4726 2368	110.4699 7859	104.7894 0335	138
139	117.2966 2601	114.1397 1613	111.0996 4646	105.3504 4314	139
140	118.0016 2196	114.8048 6856	111.7272 2242	105.9091 5496	140
141	118.7048 5981	115.4680 8660	112.3527 1341	106.4655 4847	141
142	119.4063 4395	116.1293 7588	112.9761 2636	107.0196 3330	142
143	120.1060 7875	116.7887 4201	113.5974 6817	107.5714 1902	143
144	120.8040 6858	117.4461 9058	114.2167 4572	108.1209 1517	144
145	121.5003 1778	118.1017 2717	114.8339 6586	108.6681 3126	145
146	122.1948 3071	118.7553 5734	115.4491 3545	109.2130 7674	146
147	122.8876 1168	119.4070 8663	116.0622 6128	109.7557 6103	147
148	123.5786 6502	120.0569 2057	116.6733 5015	110.2961 9353	148
149	124.2679 9503	120.7048 6467	117.2824 0882	110.8343 8356	149
150	124.9556 0601	121.3509 2444	117.8894 4404	111.3703 4044	150

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	1.950 1681	1.941 3785	1.932 6562	1.915 4120	101
102	1.953 9275	1.945 0561	1.936 2530	1.918 8512	102
103	1.957 6455	1.948 6921	1.939 8084	1.922 2493	103
104	1.961 3227	1.952 2875	1.943 3233	1.925 6071	104
105	1.964 9601	1.955 8431	1.946 7984	1.928 9253	105
106	1.968 5582	1.959 3595	1.950 2346	1.932 2048	106
107	1.972 1179	1.962 8377	1.953 6325	1.935 4462	107
108	1.975 6400	1.966 2782	1.956 9929	1.938 6503	108
109	1.979 1249	1.969 6817	1.960 3163	1.941 8178	109
110	1.982 5736	1.973 0491	1.963 6037	1.944 9494	110
111	1.985 9866	1.976 3808	1.966 8555	1.948 0457	111
112	1.989 3646	1.979 6776	1.970 0725	1.951 1073	112
113	1.992 7082	1.982 9401	1.973 2553	1.954 1350	113
114	1.996 0180	1.986 1689	1.976 4045	1.957 1293	114
115	1.999 2946	1.989 3645	1.979 5207	1.960 0908	115
116	2.002 5386	1.992 5276	1.982 6044	1.963 0200	116
117	2.005 7504	1.995 6587	1.985 6562	1.965 9176	117
118	2.008 9309	1.998 7584	1.988 6767	1.968 7840	118
119	2.012 0804	2.001 8273	1.991 6664	1.971 6200	119
120	2.015 1994	2.004 8658	1.994 6259	1.974 4258	120
121	2.018 2885	2.007 8743	1.997 5555	1.977 2021	121
122	2.021 3481	2.010 8537	2.000 4559	1.979 9494	122
123	2.024 3788	2.013 8040	2.003 3276	1.982 6681	123
124	2.027 3810	2.016 7260	2.006 1708	1.985 3587	124
125	2.030 3552	2.019 6200	2.008 9863	1.988 0217	125
126	2.033 3018	2.022 4866	2.011 7743	1.990 6575	126
127	2.036 2212	2.025 3261	2.014 5354	1.993 2665	127
128	2.039 1140	2.028 1389	2.017 2700	1.995 8493	128
129	2.041 9806	2.030 9256	2.019 9785	1.998 4062	129
130	2.044 8211	2.033 6865	2.022 6613	2.000 9376	130
131	2.047 6363	2.036 4220	2.025 3187	2.003 4438	131
132	2.050 4264	2.039 1325	2.027 9513	2.005 9254	132
133	2.053 1917	2.041 8183	2.030 5593	2.008 3827	133
134	2.055 9328	2.044 4800	2.033 1432	2.010 8161	134
135	2.058 6498	2.047 1176	2.035 7032	2.013 2259	135
136	2.061 3434	2.049 7319	2.038 2399	2.015 6125	136
137	2.064 0135	2.052 3229	2.040 7534	2.017 9762	137
138	2.066 6608	2.054 8911	2.043 2443	2.020 3173	138
139	2.069 2855	2.057 4368	2.045 7127	2.022 6363	139
140	2.071 8880	2.059 9603	2.048 1590	2.024 9335	140
141	2.074 4685	2.062 4620	2.050 5836	2.027 2091	141
142	2.077 0274	2.064 9421	2.052 9867	2.029 4634	142
143	2.079 5650	2.067 4010	2.055 3686	2.031 4969	143
144	2.082 0816	2.069 8389	2.057 7298	2.033 9097	144
145	2.084 5774	2.072 2563	2.060 0704	2.036 1022	145
146	2.087 0528	2.074 6532	2.062 3907	2.038 2747	146
147	2.089 5081	2.077 0301	2.064 6911	2.040 4273	147
148	2.091 9435	2.079 3872	2.066 9717	2.042 5605	148
149	2.094 3593	2.081 7247	2.069 2329	2.044 6745	149
150	2.096 7558	2.084 0431	2.071 4749	2.046 7695	150

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	125.6415 0226	121.9951 0534	118.4944 6254	111.9040 7343	151
152	126.3256 8804	122.6374 1284	119.0974 7100	112.4355 9176	152
153	127.0081 6762	123.2778 5240	119.6984 7612	112.9649 0463	153
154	127.6889 4525	123.9164 2944	120.2974 8454	113.4920 2117	154
155	128.3680 2519	124.5531 4937	120.8945 0290	114.0169 5051	155
156	129.0454 1166	125.1880 1761	121.4895 3781	114.5397 0171	156
157	129.7211 0889	125.8210 3954	122.0825 9587	115.0602 8383	157
158	130.3951 2109	126.4522 2052	122.6736 8363	115.5787 0585	158
159	131.0674 5246	127.0815 6591	123.2628 0764	116.0949 7674	159
160	131.7381 0719	127.7090 8105	123.8499 7443	116.6091 0543	160
161	132.4070 8946	128.3347 7125	124.4351 9050	117.1211 0081	161
162	133.0744 0346	128.9586 4184	125.0184 6233	117.6309 7172	162
163	133.7400 5332	129.5806 9809	125.5997 9638	118.1387 2699	163
164	134.4040 4321	130.2009 4529	126.1791 9909	118.6443 7539	164
165	135.0663 7727	130.8193 8870	126.7566 7687	119.1479 2566	165
166	135.7270 5962	131.4360 3355	127.3322 3612	119.6493 8641	166
167	136.3860 9439	132.0508 8509	127.9058 8322	120.1487 6662	167
168	137.0434 8567	132.6639 4853	128.4776 2451	120.6460 7460	168
169	137.6992 3758	133.2752 2907	129.0474 6633	121.1413 1907	169
170	138.3533 5419	133.8847 3189	129.6154 1499	121.6345 0858	170
171	139.0058 3959	134.4924 6216	130.1814 7677	122.1256 5166	171
172	139.6566 9785	135.0984 2504	130.7456 5795	122.6147 5680	172
173	140.3059 3302	135.7026 2567	131.3079 6478	123.1018 3246	173
174	140.9535 4914	136.3050 6917	131.8684 0347	123.5868 8705	174
175	141.5995 5027	136.9057 6066	132.4269 8025	124.0699 2898	175
176	142.2439 4042	137.5047 0522	132.9837 0128	124.5509 6658	176
177	142.8867 2361	138.1019 0794	133.5385 7275	125.0300 0817	177
178	143.5279 0385	138.6973 7389	134.0916 0079	125.5070 6204	178
179	144.1674 8514	139.2911 0811	134.6427 9152	125.9821 3643	179
180	144.8054 7146	139.8831 1564	135.1921 5106	126.4552 3956	180
181	145.4418 6679	140.4734 0151	135.7396 8549	126.9263 7961	181
182	146.0766 7510	141.0619 7071	136.2854 0086	127.3955 6471	182
183	146.7099 0035	141.6488 2825	136.8293 0322	127.8628 0299	183
184	147.3415 4649	142.2339 7909	137.3713 9860	128.3281 0253	184
185	147.9716 1744	142.8174 2821	137.9116 9300	128.7914 7136	185
186	148.6001 1715	143.3991 8055	138.4501 9241	129.2529 1749	186
187	149.2270 4952	143.9792 4105	138.9869 0277	129.7124 4891	187
188	149.8524 1848	144.5576 1463	139.5218 3005	130.1700 7357	188
189	150.4762 2791	145.1343 0618	140.0549 8016	130.6257 9936	189
190	151.0984 8170	145.7093 2062	140.5863 5901	131.0796 3418	190
191	151.7191 8375	146.2826 6280	141.1159 7248	131.5315 8586	191
192	152.3383 3790	146.8543 3760	141.6438 2643	131.9816 6223	192
193	152.9559 4803	147.4243 4986	142.1699 2672	132.4298 7106	193
194	153.5720 1799	147.9927 0442	142.6942 7917	132.8762 2010	194
195	154.1865 5161	148.5594 0611	143.2168 8958	133.3207 1707	195
196	154.7995 5272	149.1244 5971	143.7377 6375	133.7633 6965	196
197	155.4110 2516	149.6878 7004	144.2569 0743	134.2041 8550	197
198	156.0209 7273	150.2496 4187	144.7743 2639	134.6431 7224	198
199	156.6293 9923	150.8097 7996	145.2900 2635	135.0803 3746	199
200	157.2363 0846	151.3682 8907	145.8040 1302	135.5156 8872	200

Logarithm of Present Value of 1 per Annum at Compound Interest

$\log a_{\overline{n}|}$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	2.099 1331	2.086 3424	2.073 6981	2.048 8459	151
152	2.101 4917	2.088 6229	2.075 9026	2.050 9038	152
153	2.103 8316	2.090 8850	2.078 0887	2.052 9435	153
154	2.106 1533	2.093 1289	2.080 2565	2.054 9653	154
155	2.108 4568	2.095 3547	2.082 4066	2.056 9694	155
156	2.110 7426	2.097 5627	2.084 5389	2.058 9561	156
157	2.113 0106	2.099 7533	2.086 6538	2.060 9255	157
158	2.115 2613	2.101 9264	2.088 7514	2.062 8778	158
159	2.117 4949	2.104 0826	2.090 8321	2.064 8134	159
160	2.119 7115	2.106 2218	2.092 8959	2.066 7325	160
161	2.121 9113	2.108 3443	2.094 9432	2.068 6352	161
162	2.124 0945	2.110 4504	2.096 9742	2.070 5217	162
163	2.126 2615	2.112 5403	2.098 9889	2.072 3923	163
164	2.128 4123	2.114 6141	2.100 9877	2.074 2471	164
165	2.130 5472	2.116 6721	2.102 9708	2.076 0865	165
166	2.132 6664	2.118 7145	2.104 9383	2.077 9105	166
167	2.134 7701	2.120 7413	2.106 8905	2.079 7193	167
168	2.136 8584	2.122 7529	2.108 8275	2.081 5132	168
169	2.138 9315	2.124 7494	2.110 7495	2.083 2923	169
170	2.140 9897	2.126 7310	2.112 6566	2.085 0568	170
171	2.143 0330	2.128 6979	2.114 5492	2.086 8069	171
172	2.145 0617	2.130 6503	2.116 4273	2.088 5428	172
173	2.147 0760	2.132 5882	2.118 2910	2.090 2645	173
174	2.149 0760	2.134 5120	2.120 1407	2.091 9724	174
175	2.151 0619	2.136 4217	2.121 9765	2.093 6666	175
176	2.153 0338	2.138 3176	2.123 7984	2.095 3471	176
177	2.154 9918	2.140 1997	2.125 6067	2.097 0142	177
178	2.156 9363	2.142 0682	2.127 4016	2.098 6681	178
179	2.158 8673	2.143 9234	2.129 1831	2.100 3090	179
180	2.160 7850	2.145 7653	2.130 9515	2.101 9368	180
181	2.162 6895	2.147 5941	2.132 7068	2.103 5519	181
182	2.164 5809	2.149 4100	2.134 4493	2.105 1543	182
183	2.166 4594	2.151 2130	2.136 1791	2.106 7442	183
184	2.168 3253	2.153 0033	2.137 8963	2.108 3218	184
185	2.170 1784	2.154 7812	2.139 6011	2.109 8871	185
186	2.172 0191	2.156 5467	2.141 2936	2.111 4404	186
187	2.173 8475	2.158 2999	2.142 9739	2.112 9817	187
188	2.175 6637	2.160 0409	2.144 6422	2 114 5111	188
189	2.177 4679	2.161 7701	2.146 2985	2.116 0290	189
190	2.179 2601	2.163 4874	2.147 9432	2.117 5352	190
191	2.181 0405	2,165 1929	2.149 5762	2.119 0300	191
192	2.182 8093	2.166 8868	2.151 1977	2.120 5136	192
193	2.184 5664	2.168 5692	2.152 8078	2.121 9860	193
194	2.186 3121	2.170 2403	2.154 4066	2.123 4472	194
195	2.188 0465	2.171 9002	2.155 9942	2.124 8976	195
196	2.189 7697	2.173 5489	2.157 5708	2.126 3372	196
197	2.191 4819	2,175 1866	2.159 1366	2.127 7661	197
198	2.193 1830	2.176 8135	2.160 6916	2.129 1843	198
199	2.194 8732	2.178 4295	2.162 2358	2.130 5922	199
200	2.196 5528	2.180 0349	2.163 7694	2.131 9896	200

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	½%	7/12%	⅝%	⅔%	n
1	0.9950 2488	0.9942 0050	0.9937 8882	0.9933 7748	1
2	1.9850 9938	1.9826 3513	1.9814 0504	1.9801 7631	2
3	2.9702 4814	2.9653 3733	2.9628 8699	2.9604 4004	3
4	3.9504 9566	3.9423 4034	3.9382 7279	3.9342 1196	4
5	4.9258 6633	4.9136 7723	4.9076 0029	4.9015 3506	5
6	5.8963 8441	5.8793 8084	5.8709 0712	5.8624 5205	6
7	6.8620 7404	6.8394 8385	6.8282 3068	6.8170 0535	7
8	7.8229 5924	7.7940 1875	7.7796 0813	7.7652 3710	8
9	8.7790 6392	8.7430 1781	8.7250 7640	8.7071 8917	9
10	9.7304 1186	9.6865 1315	9.6646 7220	9.6429 0315	10
11	10.6770 2673	10.6245 3669	10.5984 3200	10.5724 2035	11
12	11.6189 3207	11.5571 2016	11.5263 9205	11.4957 8180	12
13	12.5561 5131	12.4842 9511	12.4485 8837	12.4130 2828	13
14	13.4887 0777	13.4060 9291	13.3650 5676	13.3242 0028	14
15	14.4166 2465	14.3225 4473	14.2758 3281	14.2293 3802	15
16	15.3399 2502	15.2336 8160	15.1809 5186	15.1284 8148	16
17	16.2586 3186	16.1395 3432	16.0804 4905	16.0216 7035	17
18	17.1727 6802	17.0401 3354	16.9743 5931	16.9089 4405	18
19	18.0823 5624	17.9355 0974	17.8627 1733	17.7903 4177	19
20	18.9874 1915	18.8256 9320	18.7455 5759	18.6659 0242	20
21	19.8879 7925	19.7107 1404	19.6229 1438	19.5356 6466	21
22	20.7840 5896	20.5906 0220	20.4948 2174	20.3996 6688	22
23	21.6756 8055	21.4653 8745	21.3613 1353	21.2579 4723	23
24	22.5628 6622	22.3350 9938	22.2224 2338	22.1105 4361	24
25	23.4456 3803	23.1997 6741	23.0781 8473	22.9574 9365	25
26	24.3240 1794	24.0594 2079	23.9286 3079	23.7988 3475	26
27	25.1980 2780	24.9140 8862	24.7737 9457	24.6346 0406	27
28	26.0676 8936	25.7637 9979	25.6137 0889	25.4648 3847	28
29	26.9330 2423	26.6085 8307	26.4484 0635	26.2895 7464	29
30	27.7940 5397	27.4484 6702	27.2779 1935	27.1088 4898	30
31	28.6507 9997	28.2834 8006	28.1022 8010	27.9226 9766	31
32	29.5032 8355	29.1136 5044	28.9215 2060	28.7311 5662	32
33	30.3515 2592	29.9390 0625	29.7356 7265	29.5342 6154	33
34	31.1955 4818	30.7595 7540	30.5447 6785	30.3320 4789	34
35	32.0353 7132	31.5753 8566	31.3488 3761	31.1245 5088	35
36	32.8710 1624	32.3864 6463	32.1479 1315	31.9118 0551	36
37	33.7025 0372	33.1928 3974	32.9420 2550	32.6938 4653	37
38	34.5298 5445	33.9945 3828	33.7312 0546	33.4707 0848	38
39	35.3530 8900	34.7915 8736	34.5154 8369	34.2424 2564	39
40	36.1722 2786	35.5840 1396	35.2948 9062	35.0090 3209	40
41	36.9872 9141	36.3718 4487	36.0694 5652	35.7705 6168	41
42	37.7982 9991	37.1551 0676	36.8392 1145	36.5270 4803	42
43	38.6052 7354	37.9338 2612	37.6041 8529	37.2785 2453	43
44	39.4082 3238	38.7080 2929	38.3644 0774	38.0250 2437	44
45	40.2071 9640	39.4777 4248	39.1199 0831	38.7665 8050	45
46	41.0021 8547	40.2429 9170	39.8707 1634	39.5032 2566	46
47	41.7932 1937	41.0038 0287	40.6168 6096	40.2349 9238	47
48	42.5803 1778	41.7602 0170	41.3583 7114	40.9619 1296	48
49	43.3635 0028	42.5122 1380	42.0952 7566	41.6840 1949	49
50	44.1427 8635	43.2598 6460	42.8276 0314	42.4013 4387	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	9.997 8339	9.997 4740	9.997 2941	9.997 1143	1
2	0.297 7823	0.297 2428	0.296 9733	0.296 7039	2
3	0.472 7927	0.472 0741	0.471 7151	0.471 3563	3
4	0.596 6517	0.595 7541	0.595 3058	0.594 8577	4
5	0.692 4826	0.691 4066	0.690 8692	0.690 3321	5
6	0.770 5858	0.769 3316	0.768 7052	0.768 0793	6
7	0.836 4554	0.835 0234	0.834 3082	0.833 5936	7
8	0.893 3711	0.891 7614	0.890 9577	0.890 1547	8
9	0.943 4482	0.941 6614	0.940 7692	0.939 8780	9
10	0.988 1312	0.986 1675	0.985 1871	0.984 2078	10
11	1.028 4503	1.026 3100	1.025 2416	1.024 1744	11
12	1.065 1663	1.062 8496	1.061 6934	1.060 5386	12
13	1.098 8565	1.096 3640	1.095 1201	1.093 8778	13
14	1.129 9704	1.127 3022	1.125 9708	1.124 6411	14
15	1.158 8636	1.156 0202	1.154 6014	1.153 1847	15
16	1.185 8233	1.182 8049	1.181 2990	1.179 7953	16
17	1.211 0840	1.207 8910	1.206 2982	1.204 7078	17
18	1.234 8403	1.231 4730	1.229 7934	1.228 1165	18
19	1.257 2550	1.253 7137	1.251 9475	1.250 1843	19
20	1.278 4660	1.274 7510	1.272 8983	1.271 0490	20
21	1.298 5906	1.294 7024	1.292 7635	1.290 8282	21
22	1.317 7303	1.313 6690	1.311 6441	1.309 6231	22
23	1.335 9727	1.331 7387	1.329 6280	1.327 5213	23
24	1.353 3942	1.348 9879	1.346 7914	1.344 5994	24
25	1.370 0621	1.365 4836	1.363 2017	1.360 9245	25
26	1.386 0353	1.381 2852	1.378 9178	1.376 5557	26
27	1.401 3666	1.396 4450	1.393 9925	1.391 5456	27
28	1.416 1025	1.411 0099	1.408 4725	1.405 9409	28
29	1.430 2851	1.425 0218	1.422 3995	1.419 7836	29
30	1.443 9519	1.438 5181	1.435 8112	1.433 1111	30
31	1.457 1368	1.451 5328	1.448 7415	1.445 9574	31
32	1.469 8704	1.464 0967	1.461 2211	1.458 3531	32
33	1.482 1805	1.476 2374	1.473 2777	1.470 3262	33
34	1.494 0926	1.487 9803	1.484 9368	1.481 9017	34
35	1.505 6297	1.499 3487	1.496 2214	1.493 1031	35
36	1.516 8131	1.510 3635	1.507 1528	1.503 9514	36
37	1.527 6622	1.521 0444	1.517 7503	1.514 4661	37
38	1.538 1948	1.531 4091	1.528 0318	1.524 6649	38
39	1.548 4274	1.541 4742	1.538 0140	1.534 5645	39
40	1.558 3752	1.551 2550	1.547 7119	1.544 1801	40
41	1.568 0525	1.560 7653	1.557 1396	1.553 5258	41
42	1.577 4723	1.570 0186	1.566 3103	1.562 6146	42
43	1.586 6467	1.579 0266	1.575 2361	1.571 4587	43
44	1.595 5870	1.587 8010	1.583 9285	1.580 0695	44
45	1.604 3038	1.596 3523	1.592 3978	1.588 4575	45
46	1.612 8070	1.604 6902	1.600 6540	1.596 6326	46
47	1.621 1058	1.612 8241	1.608 7063	1.604 6039	47
48	1.629 2089	1.620 7626	1.616 5634	1.612 3803	48
49	1.637 1243	1.628 5137	1.624 2333	1.619 9696	49
50	1.644 8597	1.636 0852	1.631 7238	1.627 3796	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	44.9181 9537	44.0031 7940	43.5553 8201	43.1139 1775	51
52	45.6897 4664	44.7421 8335	44.2786 4050	43.8217 7260	52
53	46.4574 5934	45.4769 0144	44.9974 0671	44.5249 3967	53
54	47.2213 5258	46.2073 5853	45.7117 0853	45.2234 5000	54
55	47.9814 4535	46.9335 7933	46.4215 7370	45.9173 3444	55
56	48.7377 5657	47.6555 8841	47.1270 2976	46.6066 2362	56
57	49.4903 0505	48.3734 1020	47.8281 0410	47.2913 4796	57
58	50.2391 0950	49.0870 6898	48.5248 2396	47.9715 3771	58
59	50.9841 8855	49.7965 8889	49.2172 1636	48.6472 2289	59
60	51.7255 6075	50.5019 9394	49.9053 0818	49.3184 3334	60
61	52.4632 4453	51.2033 0800	50.5891 2614	49.9851 9868	61
62	53.1972 5824	51.9005 5478	51.2686 9679	50.6475 4835	62
63	53.9276 2014	52.5937 5787	51.9440 4650	51.3055 1161	63
64	54.6543 4839	53.2829 4073	52.6152 0149	51.9591 1749	64
65	55.3774 6109	53.9681 2668	53.2821 8781	52.6083 9486	65
66	56.0969 7621	54.6493 3888	53.9450 3137	53.2533 7238	66
67	56.8129 1165	55.3266 0040	54.6037 5788	53.8940 7852	67
68	57.5252 8522	55.9999 3413	55.2583 9293	54.5305 4158	68
69	58.2341 1465	56.6693 6287	55.9089 6191	55.1627 8965	69
70	58.9394 1756	57.3349 0925	56.5554 9010	55.7908 5064	70
71	59.6412 1151	57.9965 9579	57.1980 0258	56.4147 5229	71
72	60.3395 1394	58.6544 4488	57.8365 2431	57.0345 2215	72
73	61.0343 4222	59.3084 7877	58.4710 8006	57.6501 8756	73
74	61.7257 1366	59.9587 1959	59.1016 9447	58.2617 7572	74
75	62.4136 4543	60.6051 8934	59.7283 9201	58.8693 1363	75
76	63.0981 5466	61.2479 0988	60.3511 9703	59.4728 2811	76
77	63.7792 5836	61.8869 0297	60.9701 3370	60.0723 4581	77
78	64.4569 7350	62.5221 9021	61.5852 2604	60.6678 9319	78
79	65.1313 1691	63.1537 9310	62.1964 9792	61.2594 9654	79
80	65.8023 0538	63.7817 3301	62.8039 7309	61.8471 8200	80
81	66.4699 5561	64.4060 3118	63.4076 7512	62.4309 7549	81
82	67.1342 8419	65.0267 0874	64.0076 2745	63.0109 0281	82
83	67.7953 0765	65.6437 8667	64.6038 5337	63.5869 8954	83
84	68.4530 4244	66.2572 8585	65.1963 7602	64.1592 6114	84
85	69.1075 0491	66.8672 2705	65.7852 1840	64.7277 4285	85
86	69.7587 1135	67.4736 3089	66.3704 0338	65.2924 5979	86
87	70.4066 7796	68.0765 1789	66.9519 5367	65.8534 3687	87
88	71.0514 2086	68.6759 0845	67.5298 9185	66.4106 9888	88
89	71.6929 5608	69.2718 2283	68.1042 4034	66.9642 7041	89
90	72.3312 9958	69.8642 8121	68.6750 2146	67.5141 7590	90
91	72.9664 6725	70.4533 0363	69.2422 5735	68.0604 3964	91
92	73.5984 7487	71.0389 1001	69.8059 7004	68.6030 8574	92
93	74.2273 3818	71.6211 2017	70.3661 8141	69.1421 3815	93
94	74.8530 7282	72.1999 5379	70.9229 1320	69.6776 2068	94
95	75.4756 9434	72.7754 3047	71.4761 8703	70.2095 5696	95
96	76.0952 1825	73.3475 6967	72.0260 2438	70.7379 7049	96
97	76.7116 5995	73.9163 9075	72.5724 4658	71.2628 8460	97
98	77.3250 3478	74.4819 1294	73.1154 7487	71.7843 2245	98
99	77.9353 5799	75.0441 5539	73.6551 3030	72.3023 0707	99
100	78.5426 4477	75.6031 3712	74.1914 3384	72.8168 6132	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	1.652 4223	1.643 4841	1.639 0418	1.634 6175	51
52	1.659 8188	1.650 7172	1.646 1943	1.641 6900	52
53	1.667 0555	1.657 7909	1.653 1875	1.648 6033	53
54	1.674 1384	1.664 7112	1.660 0274	1.655 3637	54
55	1.681 0733	1.671 4837	1.666 7198	1.661 9767	55
56	1.687 8655	1.678 1139	1.673 2701	1.668 4476	56
57	1.694 5202	1.684 6067	1.679 6831	1.674 7817	57
58	1.701 0419	1.690 9671	1.685 9639	1.680 9836	58
59	1.707 4355	1.697 1996	1.692 1170	1.687 0581	59
60	1.713 7052	1.703 3085	1.698 1468	1.693 0093	60
61	1.719 8551	1.709 2980	1.704 0572	1.698 8414	61
62	1.725 8892	1.715 1720	1.709 8523	1.704 5584	62
63	1.731 8113	1.720 9342	1.715 5358	1.710 1641	63
64	1.737 6247	1.726 5882	1.721 1112	1.715 6618	64
65	1.743 3330	1.732 1373	1.726 5820	1.721 0550	65
66	1.748 9394	1.737 5849	1.731 9515	1.726 3471	66
67	1.754 4470	1.742 9340	1.737 2226	1.731 5410	67
68	1.759 8588	1.748 1875	1.742 3983	1.736 6398	68
69	1.765 1775	1.753 3483	1.747 4814	1.741 6462	69
70	1.770 4059	1.758 4191	1.752 4748	1.746 5630	70
71	1.775 5464	1.763 4025	1.757 3808	1.751 3927	71
72	1.780 6018	1.768 3009	1.762 2022	1.756 1378	72
73	1.785 5742	1.773 1168	1.766 9411	1.760 8007	73
74	1.790 4661	1.777 8524	1.771 5999	1.765 3837	74
75	1.795 2796	1.782 5098	1.776 1808	1.769 8890	75
76	1.800 0167	1.787 6913	1.780 6859	1.774 3185	76
77	1.804 6795	1.791 5987	1.785 1172	1.778 6746	77
78	1.809 2699	1.796 0342	1.789 4765	1.782 9589	78
79	1.813 7898	1.800 3995	1.793 7659	1.787 1734	79
80	1.818 2411	1.804 6963	1.797 9871	1.791 3199	80
81	1.822 6254	1.808 9265	1.802 1419	1.795 4001	81
82	1.826 9443	1.813 0918	1.806 2318	1.799 4157	82
83	1.831 1997	1.817 1936	1.810 2584	1.803 3682	83
84	1.835 3928	1.821 2337	1.814 2235	1.807 2594	84
85	1.839 5252	1.825 2133	1.818 1283	1.811 0905	85
86	1.843 5984	1.829 1341	1.821 9745	1.814 8630	86
87	1.847 6138	1.832 9973	1.825 7633	1.818 5785	87
88	1.851 5728	1.836 8044	1.829 4960	1.822 2380	88
89	1.855 4765	1.840 5566	1.833 1741	1.825 8432	89
90	1.859 3263	1.844 2552	1.836 7988	1.829 3949	90
91	1.863 1233	1.847 9014	1.840 3712	1.832 8947	91
92	1.866 8688	1.851 4963	1.843 8926	1.836 3436	92
93	1.870 5639	1.855 0411	1.847 3640	1.839 7428	93
94	1.874 2096	1.858 5369	1.850 7866	1.843 0933	94
95	1.877 8071	1.861 9848	1.854 1613	1.846 3963	95
96	1.881 3573	1.865 3858	1.857 4895	1.849 6526	96
97	1.884 8614	1.868 7408	1.860 7718	1.852 8634	97
98	1.888 3201	1.872 0508	1.864 0093	1.856 0296	98
99	1.891 7345	1.875 3169	1.867 2030	1.859 1521	99
100	1.895 1055	1.878 5398	1.870 3538	1.862 2320	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	½%	7/12%	⅝%	⅔%	n
101	79.1469 1021	76.1588 7702	74.7244 0630	73.3280 0792	101
102	79.7481 6937	76.7113 9392	75.2540 6838	73.8357 6944	102
103	80.3464 3718	77.2607 0648	75.7804 4062	74.3401 6830	103
104	80.9417 2854	77.8068 3331	76.3035 4348	74.8412 2677	104
105	81.5340 5825	78.3497 9288	76.8233 9724	75.3389 6697	105
106	82.1234 4104	78.8896 0355	77.3400 2210	75.8334 1088	106
107	82.7098 9158	79.4262 8359	77.8534 3812	76.3245 8032	107
108	83.2934 2446	79.9598 5115	78.3636 6521	76.8124 9699	108
109	83.8740 5419	80.4903 2428	78.8707 2319	77.2971 8242	109
110	84.4517 9522	81.0177 2093	79.3746 3174	77.7786 5801	110
111	85.0266 6191	81.5420 5895	79.8754 1043	78.2569 4503	111
112	85.5986 6856	82.0633 5606	80.3730 7868	78.7320 6458	112
113	86.1678 2942	82.5816 2991	80.8676 5583	79.2040 3764	113
114	86.7341 5862	83.0968 9803	81.3591 6108	79.6728 8505	114
115	87.2976 7027	83.6091 7785	81.8476 1349	80.1386 2751	115
116	87.8583 7838	84.1184 8671	82.3330 3204	80.6012 8559	116
117	88.4162 9690	84.6248 4182	82.8154 3557	81.0608 7970	117
118	88.9714 3970	85.1282 6033	83.2948 4280	81.5174 3015	118
119	89.5238 2059	85.6287 5926	83.7712 7235	81.9709 5708	119
120	90.0734 5333	86.1263 5554	84.2447 4271	82.4214 8052	120
121	90.6203 5157	86.6210 6602	84.7152 7226	82.8690 2036	121
122	91.1645 2892	87.1129 0742	85.1828 7926	83.3135 9636	122
123	91.7059 9893	87.6018 9638	85.6475 8188	83.7552 2815	123
124	92.2447 7505	88.0880 4946	86.1093 9814	84.1939 3523	124
125	92.7808 7070	88.5713 8308	86.5683 4597	84.6297 3696	125
126	93.3142 9920	89.0519 1361	87.0244 4320	85.0626 5259	126
127	93.8450 7384	89.5296 5731	87.4777 0753	85.4927 0122	127
128	94.3732 0780	90.0046 3032	87.9281 5655	85.9199 0185	128
129	94.8987 1422	90.4768 4873	88.3758 0776	86.3442 7334	129
130	95.4216 0619	90.9463 2851	88.8206 7852	86.7658 3442	130
131	95.9418 9671	91.4130 8554	89.2627 8610	87.1846 0371	131
132	96.4595 9872	91.8771 3561	89.7021 4768	87.6005 9969	132
133	96.9747 2509	92.3384 9442	90.1387 8030	88.0138 4072	133
134	97.4872 8865	92.7971 7758	90.5727 0092	88.4243 4507	134
135	97.9973 0214	93.2532 0060	91.0039 2638	88.8321 3084	135
136	98.5047 7825	93.7065 7892	91.4324 7342	89.2372 1604	136
137	99.0097 2960	94.1573 2787	91.8583 5868	89.6396 1856	137
138	99.5121 6875	94.6054 6270	92.2815 9869	90.0393 5616	138
139	100.0121 0821	95.0509 9857	92.7022 0988	90.4364 4649	139
140	100.5095 6041	95.4939 5056	93.1202 0857	90.8309 0709	140
141	101.0045 3772	95.9343 3364	93.5356 1100	91.2227 5536	141
142	101.4970 5246	96.3721 6272	93.9484 3330	91.6120 0861	142
143	101.9871 1688	96.8074 5261	94.3586 9148	91.9986 8402	143
144	102.4747 4316	97.2402 1804	94.7664 0147	92.3827 9867	144
145	102.9599 4344	97.6704 7364	95.1715 7910	92.7643 6952	145
146	103.4427 2979	98.0982 3397	95.5742 4010	93.1434 1340	146
147	103.9231 1422	98.5235 1350	95.9744 0010	93.5199 4706	147
148	104.4011 0868	98.9463 2663	96.3720 7463	93.8939 8712	148
149	104.8767 2505	99.3666 8765	96.7672 7913	94.2655 5010	149
150	105.3499 7518	99.7846 1078	97.1600 2895	94.6346 5239	150

Logarithm of Present Value of 1 per Annum at Compound Interest

$log\ a_{\overline{n}|}$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	1.898 4340	1.881 7205	1.873 4625	1.865 2698	101
102	1.901 7207	1.884 8598	1.876 5300	1.868 2668	102
103	1.904 9667	1.887 9587	1.879 5571	1.871 2236	103
104	1.908 1724	1.891 0178	1.882 5447	1.874 1409	104
105	1.911 3390	1.894 0379	1.885 4935	1.877 0197	105
106	1.914 4671	1.897 0198	1.888 4043	1.879 8606	106
107	1.917 5574	1.899 9643	1.891 2778	1.882 6644	107
108	1.920 6107	1.902 8720	1.894 1148	1.885 4319	108
109	1.923 6277	1.905 7436	1.896 9158	1.888 1636	109
110	1.926 6089	1.908 5800	1.899 6817	1.890 8605	110
111	1.929 5551	1.911 3817	1.902 4131	1.893 5229	111
112	1.932 4670	1.914 1493	1.905 1106	1.896 1517	112
113	1.935 3451	1.916 8834	1.907 7748	1.898 7473	113
114	1.938 1902	1.919 5848	1.910 4065	1.901 3106	114
115	1.941 0027	1.922 2539	1.913 0060	1.903 8419	115
116	1.943 7832	1.924 8914	1.915 5741	1.906 3419	116
117	1.946 5324	1.927 4979	1.918 1113	1.908 8114	117
118	1.949 2507	1.930 0737	1.920 6181	1.911 2505	118
119	1.951 9386	1.932 6197	1.923 0951	1.913 6600	119
120	1.954 5968	1.935 1361	1.925 5428	1.916 0404	120
121	1.957 2258	1.937 6235	1.927 9617	1.918 3922	121
122	1.959 8259	1.940 0825	1.930 3523	1.920 7159	122
123	1.962 3978	1.942 5135	1.932 7151	1.923 0119	123
124	1.964 9417	1.944 9169	1.935 0505	1.925 2808	124
125	1.967 4584	1.947 2934	1.937 3591	1.927 5230	125
126	1.969 9482	1.949 6433	1.939 6412	1.929 7389	126
127	1.972 4114	1.951 9669	1.941 8974	1.931 9291	127
128	1.974 8488	1.954 2648	1.944 1280	1.934 0938	128
129	1.977 2603	1.956 5375	1.946 3334	1.936 2336	129
130	1.979 6467	1.958 7852	1.948 5141	1.938 3488	130
131	1.982 0083	1.961 0084	1.950 6705	1.940 4398	131
132	1.984 3455	1.963 2074	1.952 8028	1.942 5071	132
133	1.986 6586	1.965 3828	1.954 9116	1.944 5510	133
134	1.988 9480	1.967 5347	1.956 9974	1.946 5719	134
135	1.991 2141	1.969 6637	1.959 0601	1.948 5700	135
136	1.993 4573	1.971 7701	1.961 1005	1.950 5460	136
137	1.995 6779	1.973 8541	1.963 1187	1.952 5000	137
138	1.997 8762	1.975 9162	1.965 1151	1.954 4324	138
139	2.000 0526	1.977 9567	1.967 0901	1.956 3434	139
140	2.002 2074	1.979 9759	1.969 0440	1.958 2337	140
141	2.004 3409	1.981 9741	1.970 9770	1.960 1032	141
142	2.006 4534	1.983 9516	1.972 8895	1.961 9524	142
143	2.008 5453	1.985 9088	1.974 7819	1.963 7816	143
144	2.010 6168	1.987 8460	1.976 6544	1.965 5912	144
145	2.012 6682	1.989 7633	1.978 5073	1.967 3812	145
146	2.014 7000	1.991 6612	1.980 3409	1.969 1521	146
147	2.016 7121	1.993 5399	1.982 1554	1.970 9043	147
148	2.018 7051	1.995 3996	1.983 9512	1.972 6376	148
149	2.020 6792	1.997 2408	1.985 7286	1.974 3530	149
150	2.022 6344	1.999 0636	1.987 4876	1.976 0502	150

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	105.8208 7082	100.2001 1017	97.5503 3933	95.0013 1029	151
152	106.2894 2371	100.6131 9987	97.9382 2542	95.3655 4000	152
153	106.7556 4548	101.0238 9385	98.3237 0228	95.7273 5759	153
154	107.2195 4774	101.4322 0601	98.7067 8488	96.0867 7904	154
155	107.6811 4203	101.8381 5017	99.0874 8808	96.4438 2021	155
156	108.1404 3983	102.2417 4005	99.4658 2666	96.7984 9687	156
157	108.5974 5257	102.6429 8931	99.8418 1532	97.1508 2468	157
158	109.0521 9161	103.0419 1152	100.2154 6864	97.5008 1919	158
159	109.5046 6827	103.4385 2019	100.5868 0113	97.8484 9586	159
160	109.9548 9380	103.8328 2872	100.9558 2721	98.1938 7003	160
161	110.4028 7940	104.2248 5046	101.3225 6120	98.5369 5695	161
162	110.8486 3622	104.6145 9866	101.6870 1734	98.8777 7178	162
163	111.2921 7534	105.0020 8652	102.0492 0978	99.2163 2956	163
164	111.7335 0780	105.3873 2715	102.4091 5258	99.5526 4523	164
165	112.1726 4458	105.7703 3357	102.7668 5971	99.8867 3364	165
166	112.6095 9660	106.1511 1874	103.1223 4505	100.2186 0955	166
167	113.0443 7473	106.5296 9555	103.4756 2241	100.5482 8760	167
168	113.4769 8978	106.9060 7680	103.8267 0550	100.8757 8236	168
169	113.9074 5251	107.2802 7523	104.1756 0795	101.2011 0828	169
170	114.3357 7365	107.6523 0349	104.5223 4330	101.5242 7972	170
171	114.7619 6383	108.0221 7417	104.8669 2502	101.8453 1095	171
172	115.1860 3366	108.3898 9979	105.2093 6648	102.1642 1614	172
173	115.6079 9369	108.7554 9278	105.5496 8098	102.4810 0939	173
174	116.0278 5442	109.1189 6552	105.8878 8172	102.7957 0466	174
175	116.4456 2629	109.4803 3029	106.2239 8183	103.1083 1586	175
176	116.8613 1969	109.8395 9933	106.5579 9436	103.4188 5678	176
177	117.2749 4496	110.1967 8478	106.8899 3229	103.7273 4115	177
178	117.6865 1240	110.5518 9874	107.2198 0848	104.0337 8257	178
179	118.0960 3224	110.9049 5322	107.5476 3576	104.3381 9457	179
180	118.5035 1467	111.2559 6015	107.8734 2684	104.6405 9061	180
181	118.9089 6982	111.6049 3142	108.1971 9438	104.9409 8402	181
182	119.3124 0778	111.9518 7882	108.5189 5094	105.2393 8807	182
183	119.7138 3859	112.2968 1411	108.8387 0900	105.5358 1593	183
184	120.1132 7222	112.6397 4894	109.1564 8100	105.8302 8070	184
185	120.5107 1863	112.9806 9492	109.4722 7925	106.1227 9536	185
186	120.9061 8769	113.3196 6359	109.7861 1603	106.4133 7285	186
187	121.2996 8925	113.6566 6640	110.0980 0351	106.7020 2598	187
188	121.6912 3308	113.9917 1477	110.4079 5379	106.9887 6750	188
189	122.0808 2894	114.3248 2002	110.7159 7893	107.2736 1007	189
190	122.4684 8650	114.6559 9342	111.0220 9086	107.5565 6626	190
191	122.8542 1543	114.9852 4619	111.3263 0147	107.8376 4857	191
192	123.2380 2530	115.3125 8945	111.6286 2258	108.1168 6941	192
193	123.6199 2567	115.6380 3429	111.9290 6592	108.3942 4111	193
194	123.9999 2604	115.9615 9171	112.2276 4315	108.6697 7590	194
195	124.3780 3586	116.2832 7265	112.5243 6586	108.9434 8597	195
196	124.7542 6454	116.6030 8801	112.8192 4558	109.2153 8338	196
197	125.1286 2143	116.9210 4859	113.1122 9374	109.4854 8015	197
198	125.5011 1585	117.2371 6516	113.4035 2173	109.7537 8819	198
199	125.8717 5707	117.5514 4842	113.6929 4085	110.0203 1937	199
200	126.2405 5430	117.8639 0899	113.9805 6234	110.2850 8543	200

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	2.024 5714	2.000 8682	1.989 2288	1.977 7296	151
152	2.026 4900	2.002 6549	1.990 9522	1.979 3915	152
153	2.028 3909	2.004 4241	1.992 6582	1.981 0360	153
154	2.030 2740	2.006 1759	1.994 3471	1.982 6636	154
155	2.032 1396	2.007 9105	1.996 0188	1.984 2744	155
156	2.033 9882	2.009 6282	1.997 6739	1.985 8686	156
157	2.035 8196	2.011 3293	1.999 3125	1.987 4465	157
158	2.037 6344	2.013 0139	2.000 9348	1.989 0083	158
159	2.039 4326	2.014 6823	2.002 5410	1.990 5542	159
160	2.041 2145	2.016 3347	2.004 1314	1.992 0844	160
161	2.042 9804	2.017 9713	2.005 7062	1.993 5991	161
162	2.044 7304	2.019 5923	2.007 2655	1.995 0987	162
163	2.046 4646	2.021 1980	2.008 8096	1.996 5832	163
164	2.048 1835	2.022 7884	2.010 3388	1.998 0528	164
165	2.049 8869	2.024 3639	2.011 8531	1.999 5078	165
166	2.051 5755	2.025 9246	2.013 3528	2.000 9484	166
167	2.053 2489	2.027 4707	2.014 8380	2.002 3747	167
168	2.054 9078	2.029 0024	2.016 3091	2.003 7869	168
169	2.056 5522	2.030 5199	2.017 7661	2.005 1853	169
170	2.058 1821	2.032 0233	2.019 2091	2.006 5699	170
171	2.059 7979	2.033 5129	2.020 6386	2.007 9410	171
172	2.061 3998	2.034 9888	2.022 0544	2.009 2988	172
173	2.062 9878	2.036 4512	2.023 4569	2.010 6434	173
174	2.064 5623	2.037 9003	2.024 8462	2.011 9750	174
175	2.066 1232	2.039 3361	2.026 2226	2.013 2937	175
176	2.067 6708	2.040 7589	2.027 5860	2.014 5997	176
177	2.069 2052	2.042 1689	2.028 9368	2.015 8933	177
178	2.070 7267	2.043 5662	2.030 2750	2.017 1744	178
179	2.072 2353	2.044 9509	2.031 6009	2.018 4433	179
180	2.073 7312	2.046 3233	2.032 9145	2.019 7002	180
181	2.075 2146	2.047 6834	2.034 2160	2.020 9452	181
182	2.076 6856	2.049 0314	2.035 5056	2.022 1783	182
183	2.078 1443	2.050 3675	2.036 7834	2.023 3999	183
184	2.079 5910	2.051 6916	2.038 0495	2.024 6100	184
185	2.081 0257	2.053 0043	2.039 3042	2.025 8087	185
186	2.082 4485	2.054 3053	2.040 5474	2.026 9962	186
187	2.083 8597	2.055 5949	2.041 7794	2.028 1727	187
188	2.085 2593	2.056 8733	2.043 0003	2.029 3382	188
189	2.086 6475	2.058 1405	2.044 2103	2.030 4929	189
190	2.088 0244	2.059 3967	2.045 4094	2.031 6369	190
191	2.089 3901	2.060 6421	2.046 5978	2.032 7704	191
192	2.090 7447	2.061 8767	2.047 7755	2.033 8934	192
193	2.092 0885	2.063 1007	2.048 9429	2.035 0062	193
194	2.093 4215	2.064 3142	2.050 0999	2.036 1088	194
195	2.094 7437	2.065 5172	2.051 2466	2.037 2013	195
196	2.096 0554	2.066 7101	2.052 3832	2.038 2838	196
197	2.097 3566	2.067 8927	2.053 5098	2.039 3566	197
198	2.098 6476	2.069 0653	2.054 6266	2.040 4195	198
199	2.099 9283	2.070 2280	2.055 7335	2.041 4729	199
200	2.101 1989	2.071 3808	2.056 8308	2.042 5168	200

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	¾%	⅞%	1%	1⅛%	n
1	0.9925 5583	0.9913 2590	0.9900 9901	0.9888 7515	1
2	1.9777 2291	1.9740 5294	1.9703 9506	1.9667 4923	2
3	2.9555 5624	2.9482 5570	2.9409 8521	2.9337 4460	3
4	3.9261 1041	3.9140 0813	3.9019 6555	3.8899 8230	4
5	4.8894 3961	4.8713 8352	4.8534 3124	4.8355 8200	5
6	5.8455 9763	5.8204 5454	5.7954 7647	5.7706 6205	6
7	6.7946 3785	6.7612 9323	6.7281 9453	6.6953 3948	7
8	7.7366 1325	7.6939 7098	7.6516 7775	7.6097 3002	8
9	8.6715 7642	8.6185 5859	8.5660 1758	8.5139 4810	9
10	9.5995 7958	9.5351 2624	9.4713 0453	9.4081 0690	10
11	10.5206 7452	10.4437 4348	10.3676 2825	10.2923 1832	11
12	11.4349 1267	11.3444 7929	11.2550 7747	11.1666 9302	12
13	12.3423 4508	12.2374 0202	12.1337 4007	12.0313 4044	13
14	13.2430 2242	13.1225 7945	13.0037 0304	12.8863 6880	14
15	14.1369 9495	14.0000 7876	13.8650 5252	13.7318 8509	15
16	15.0243 1261	14.8699 6656	14.7178 7378	14.5679 9514	16
17	15.9050 2492	15.7323 0885	15.5622 5127	15.3948 0360	17
18	16.7791 8107	16.5871 7111	16.3982 6858	16.2124 1395	18
19	17.6468 2984	17.4346 1820	17.2260 0850	17.0209 2850	19
20	18.5080 1969	18.2747 1445	18.0455 5297	17.8204 4845	20
21	19.3627 9870	19.1075 2361	18.8569 8313	18.6110 7387	21
22	20.2112 1459	19.9331 0891	19.6603 7934	19.3929 0371	22
23	21.0533 1473	20.7515 3300	20.4558 2113	20.1660 3580	23
24	21.8891 4614	21.5628 5799	21.2433 8726	20.9305 6693	24
25	22.7187 5547	22.3671 4547	22.0231 5570	21.6865 9276	25
26	23.5421 8905	23.1644 5647	22.7952 0366	22.4342 0792	26
27	24.3594 9286	23.9548 5152	23.5596 0759	23.1735 0598	27
28	25.1707 1251	24.7383 9060	24.3164 4316	23.9045 7946	28
29	25.9758 9331	25.5151 3319	25.0657 8530	24.6275 1986	29
30	26.7750 8021	26.2851 3823	25.8077 0822	25.3424 1766	30
31	27.5683 1783	27.0484 6417	26.5422 8537	26.0493 6233	31
32	28.3556 5045	27.8051 6894	27.2695 8947	26.7484 4236	32
33	29.1371 2203	28.5553 0998	27.9896 9255	27.4397 4522	33
34	29.9127 7621	29.2989 4422	28.7026 6589	28.1233 5745	34
35	30.6826 5629	30.0361 2809	29.4085 8009	28.7993 6460	35
36	31.4468 0525	30.7669 1757	30.1075 0504	29.4678 5127	36
37	32.2052 6576	31.4913 6810	30.7995 0994	30.1289 0114	37
38	32.9580 8016	32.2095 3467	31.4846 6330	30.7825 9692	38
39	33.7052 9048	32.9214 7179	32.1630 3298	31.4290 2044	39
40	34.4469 3844	33.6272 3350	32.8346 8611	32.0682 5260	40
41	35.1830 6545	34.3268 7335	33.4996 8922	32.7903 7340	41
42	35.9137 1260	35.0204 4446	34.1581 0814	33.3254 6195	42
43	36.6389 2070	35.7079 9947	34.8100 0806	33.9435 9649	43
44	37.3587 3022	36.3895 9055	35.4554 5352	34.5548 5438	44
45	38.0731 8136	37.0652 6944	36.0945 0844	35.1593 1212	45
46	38.7823 1401	37.7350 8743	36.7272 3608	35.7570 4536	46
47	39.4861 6774	38.3990 9535	37.3536 9909	36.3481 2891	47
48	40.1847 8189	39.0573 4359	37.9739 5949	36.9326 3674	48
49	40.8781 9542	39.7098 8212	38.5880 7871	37.5106 4202	49
50	41.5664 4707	40.3567 6047	39.1961 1753	38.0822 1708	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	9.996 7550	9.996 2164	9.995 6786	9.995 1415	1
2	0.296 1654	0.295 3587	0.294 5533	0.293 7490	2
3	0.470 6393	0.469 5651	0.468 4928	0.467 4223	3
4	0.593 9625	0.592 6217	0.591 2834	0.589 9476	4
5	0.689 2591	0.687 6523	0.686 0488	0.684 4488	5
6	0.766 8289	0.764 9569	0.763 0891	0.761 2257	6
7	0.832 1663	0.830 0298	0.827 8985	0.825 7726	7
8	0.888 5509	0.886 1505	0.883 7567	0.881 3692	8
9	0.938 0980	0.935 4346	0.932 7790	0.930 1310	9
10	0.982 2522	0.979 3265	0.976 4098	0.973 5022	10
11	1.022 0436	1.018 8562	1.015 6795	1.012 5132	11
12	1.058 2329	1.054 7845	1.051 3485	1.047 9246	12
13	1.091 3976	1.087 6892	1.083 9946	1.080 3140	13
14	1.121 9871	1.118 0192	1.114 0669	1.110 1305	14
15	1.150 3571	1.146 1305	1.141 9215	1.137 7302	15
16	1.176 7946	1.172 3100	1.167 8449	1.163 3998	16
17	1.201 5344	1.196 7924	1.192 0723	1.187 3742	17
18	1.224 7708	1.219 7723	1.214 7980	1.209 8477	18
19	1.246 6667	1.241 4125	1.236 1846	1.230 9833	19
20	1.267 3600	1.261 8506	1.256 3701	1.250 9186	20
21	1.286 9681	1.281 2044	1.275 4721	1.269 7714	21
22	1.305 5924	1.299 5751	1.293 5919	1.287 6428	22
23	1.323 3205	1.317 0502	1.310 8168	1.304 6206	23
24	1.340 2288	1.333 7063	1.327 2237	1.320 7810	24
25	1.356 3845	1.349 6105	1.342 8796	1.336 1914	25
26	1.371 8469	1.364 8221	1.357 8434	1.350 9107	26
27	1.386 6683	1.379 3935	1.372 1681	1.364 9918	27
28	1.400 8955	1.393 3714	1.385 8999	1.378 4811	28
29	1.414 5705	1.406 7979	1.399 0814	1.391 4207	29
30	1.427 7308	1.419 7103	1.411 7494	1.403 8480	30
31	1.440 4103	1.432 1426	1.423 9383	1.415 7971	31
32	1.452 6396	1.444 1255	1.435 6785	1.427 2985	32
33	1.464 4466	1.455 6869	1.446 9981	1.438 3801	33
34	1.475 8568	1.466 8520	1.457 9223	1.449 0671	34
35	1.486 8929	1.477 6440	1.468 4740	1.459 3829	35
36	1.497 5765	1.488 0840	1.478 6748	1.469 3485	36
37	1.507 9269	1.498 1915	1.488 5437	1.478 9833	37
38	1.517 9619	1.507 9844	1.498 0990	1.488 3052	38
39	1.527 6980	1.517 4792	1.507 3570	1.497 3309	39
40	1.537 1506	1.526 6911	1.516 3329	1.506 0753	40
41	1.546 3337	1.535 6343	1.525 0407	1.514 5527	41
42	1.555 2603	1.544 3216	1.533 4937	1.522 7762	42
43	1.563 9427	1.552 7655	1.541 7041	1.530 7578	43
44	1.572 3921	1.560 9772	1.549 6830	1.538 5091	44
45	1.580 6192	1.568 9671	1.557 4411	1.546 0404	45
46	1.588 6337	1.576 7454	1.564 9883	1.553 3616	46
47	1.596 4449	1.584 3210	1.572 3336	1.560 4820	47
48	1.604 0616	1.591 7027	1.579 4858	1.567 4103	48
49	1.611 4917	1.598 8986	1.586 4531	1.574 1545	49
50	1.618 7429	1.605 9163	1.593 2430	1.580 7222	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	42.2495 7525	40.9980 2772	39.7981 3617	38.6474 3345	51
52	42.9276 1812	41.6337 3256	40.3941 9423	39.2063 6188	52
53	43.6006 1351	42.2639 2324	40.9843 5072	39.7590 7232	53
54	44.2685 9902	42.8886 4757	41.5686 6408	40.3056 3394	54
55	44.9316 1193	43.5079 5298	42.1471 9216	40.8461 1514	55
56	45.5896 8926	44.1218 8647	42.7199 9224	41.3805 8358	56
57	46.2428 6776	44.7304 9465	43.2871 2102	41.9091 0613	57
58	46.8911 8388	45.3338 2369	43.8486 3468	42.4317 4896	58
59	47.5346 7382	45.9319 1939	44.4045 8879	42.9485 7746	59
60	48.1733 7352	46.5248 2716	44.9550 3841	43.4596 5633	60
61	48.8073 1863	47.1125 9198	45.5000 3803	43.9650 4952	61
62	49.4365 4455	47.6952 5847	46.0396 4161	44.4648 2029	62
63	50.0610 8640	48.2728 7085	46.5739 0258	44.9590 3119	63
64	50.6809 7906	48.8454 7296	47.1028 7385	45.4477 4407	64
65	51.2962 5713	49.4131 0826	47.6266 0777	45.9310 2009	65
66	51.9069 5497	49.9758 1984	48.1451 5621	46.4089 1975	66
67	52.5131 0667	50.5336 5040	48.6585 7050	46.8815 0284	67
68	53.1147 4607	51.0866 4228	49.1669 0149	47.3488 2852	68
69	53.7119 0677	51.6348 3745	49.6701 9949	47.8109 5527	69
70	54.3046 2210	52.1782 7752	50.1685 1435	48.2679 4094	70
71	54.8929 2516	52.7170 0374	50.6618 9539	48.7198 4270	71
72	55.4768 4880	53.2510 5699	51.1503 9148	49.1667 1714	72
73	56.0564 2561	53.7804 7781	51.6340 5097	49.6086 2016	73
74	56.6316 8795	54.3053 0638	52.1129 2175	50.0456 0708	74
75	57.2026 6794	54.8255 8253	52.5870 5124	50.4777 3259	75
76	57.7693 9746	55.3413 4575	53.0564 8637	50.9050 5077	76
77	58.3319 0815	55.8526 3520	53.5212 7364	51.3276 1510	77
78	58.8902 3141	56.3594 8966	53.9814 5905	51.7454 7847	78
79	59.4443 9842	56.8619 4762	54.4370 8817	52.1586 9317	79
80	59.9944 4012	57.3600 4721	54.8882 0611	52.5673 1092	80
81	60.5403 8722	57.8538 2623	55.3348 5753	52.9713 8286	81
82	61.0822 7019	58.3433 2216	55.7770 8666	53.3709 5957	82
83	61.6201 1930	58.8285 7215	56.2149 3729	53.7660 9104	83
84	62.1539 6456	59.3096 1304	56.6484 5276	54.1568 2674	84
85	62.6838 3579	59.7864 8133	57.0776 7600	54.5432 1557	85
86	63.2097 6257	60.2592 1321	57.5026 4951	54.9253 0588	86
87	63.7317 7427	60.7278 4457	57.9234 1535	55.3031 4549	87
88	64.2499 0002	61.1924 1097	58.3400 1520	55.6767 8169	88
89	64.7641 6875	61.6529 4768	58.7524 9030	56.0462 6126	89
90	65.2746 0918	62.1094 8965	59.1608 8148	56.4116 3041	90
91	65.7812 4981	62.5620 7152	59.5652 2919	56.7729 3490	91
92	66.2841 1892	63.0107 2765	59.9655 7346	57.1302 1992	92
93	66.7832 4458	63.4554 9210	60.3619 5392	57.4835 3021	93
94	67.2786 5467	63.8963 9861	60.7544 0982	57.8329 0997	94
95	67.7703 7685	64.3334 8065	61.1429 8002	58.1784 0294	95
96	68.2584 3856	64.7667 7140	61.5277 0299	58.5200 5235	96
97	68.7428 6705	65.1963 0375	61.9086 1682	58.8579 0096	97
98	69.2236 8938	65.6221 1028	62.2857 5923	59.1919 9106	98
99	69.7009 3239	66.0442 2333	62.6591 6755	59.5223 6446	99
100	70.1746 2272	66.4626 7492	63.0288 7877	59.8490 6251	100

$log\ a_{\overline{n}|}$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	1.625 8223	1.612 7630	1.599 8627	1.587 1206	51
52	1.632 7368	1.619 4453	1.606 3189	1.593 3565	52
53	1.639 4926	1.625 9698	1.612 6180	1.599 4363	53
54	1.646 0958	1.632 3423	1.618 7660	1.605 3657	54
55	1.652 5520	1.638 5686	1.624 7686	1.611 1507	55
56	1.658 8666	1.644 6541	1.630 6310	1.616 7966	56
57	1.665 0448	1.650 6037	1.636 3587	1.622 3084	57
58	1.671 0912	1.656 4223	1.641 9560	1.627 6909	58
59	1.677 0105	1.662 1146	1.647 4278	1.632 9488	59
60	1.682 8071	1.667 6848	1.652 7783	1.638 0863	60
61	1.688 4849	1.673 1370	1.658 0117	1.643 1076	61
62	1.694 0481	1.678 4752	1.663 1319	1.648 0165	62
63	1.699 5003	1.683 7031	1.668 1426	1.652 8169	63
64	1.704 8450	1.688 8243	1.673 0473	1.657 5123	64
65	1.710 0857	1.693 8422	1.677 8496	1.662 1061	65
66	1.715 2255	1.698 7599	1.682 5526	1.666 6015	66
67	1.720 2677	1.703 5807	1.687 1593	1.671 0015	67
68	1.725 2151	1.708 3074	1.691 6728	1.675 3092	68
69	1.730 0705	1.712 9428	1.696 0959	1.679 5274	69
70	1.734 8368	1.717 4897	1.700 4311	1.683 6588	70
71	1.739 5164	1.721 9507	1.704 6814	1.687 7059	71
72	1.744 1118	1.726 3283	1.708 8489	1.691 6712	72
73	1.748 6254	1.730 6247	1.712 9362	1.695 5572	73
74	1.753 0595	1.734 8422	1.716 9454	1.699 3660	74
75	1.757 4163	1.738 9833	1.720 8788	1.703 0998	75
76	1.761 6978	1.743 0497	1.724 7385	1.706 7608	76
77	1.765 9062	1.747 0437	1.728 5263	1.710 3511	77
78	1.770 0433	1.750 9671	1.732 2446	1.713 8724	78
79	1.774 1109	1.754 8217	1.735 8949	1.717 3267	79
80	1.778 1110	1.758 6095	1.739 4790	1.720 7158	80
81	1.782 0452	1.762 3321	1.742 9988	1.724 0413	81
82	1.785 9151	1.765 9912	1.746 4558	1.727 3050	82
83	1.789 7225	1.769 5883	1.749 8517	1.730 5084	83
84	1.793 4689	1.773 1251	1.753 1880	1.733 6532	84
85	1.797 1556	1.776 6030	1.756 4662	1.736 7407	85
86	1.800 7842	1.780 0234	1.759 6878	1.739 7725	86
87	1.804 3560	1.783 3879	1.762 8541	1.742 7498	87
88	1.807 8724	1.786 6975	1.765 9665	1.745 6741	88
89	1.811 3348	1.789 9538	1.769 0262	1.748 5466	89
90	1.814 7443	1.793 1579	1.772 0346	1.751 3687	90
91	1.818 1022	1.796 3111	1.774 9927	1.754 1413	91
92	1.821 4095	1.799 4145	1.777 9019	1.756 8659	93
93	1.824 6675	1.802 4692	1.780 7632	1.759 5434	93
94	1.827 8773	1.805 4764	1.783 5778	1.762 1750	94
95	1.831 0399	1.808 4371	1.786 3465	1.764 7618	95
96	1.834 1564	1.811 3523	1.789 0707	1.767 3082	96
97	1.837 2277	1.814 2230	1.791 7511	1.769 8048	97
98	1.840 2547	1.817 0502	1.794 3887	1.772 2629	98
99	1.843 2386	1.819 8348	1.796 9846	1.774 6802	99
100	1.846 1801	1.822 5778	1.799 5395	1.777 0574	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	¾%	⅞%	1%	1⅛%	n
101	70.6447 8682	66.8774 9683	63.3949 2947	60.1721 2609	101
102	71.1114 5094	67.2887 2052	63.7573 5591	60.4915 9564	102
103	71.5746 4113	67.6963 7722	64.1161 9397	60.8075 1114	103
104	72.0343 8325	68.1004 9786	64.4714 7918	61.1199 1213	104
105	72.4907 0298	68.5011 1312	64.8232 4671	61.4288 3770	105
106	72.9436 2579	68.8982 5341	65.1715 3140	61.7343 2653	106
107	73.3931 7696	69.2919 4885	65.5163 6772	62.0364 1684	107
108	73.8393 8160	69.6822 2935	65.8577 8983	62.3351 4644	108
109	74.2822 6461	70.0691 2451	66.1958 3151	62.6305 5273	109
110	74.7218 5073	70.4526 6370	66.5305 2625	62.9226 7266	110
111	75.1581 6450	70.8328 7604	66.8619 0718	63.2115 4280	111
112	75.5912 3027	71.2097 9037	67.1900 0710	63.4971 9931	112
113	76.0210 7223	71.5834 3531	67.5148 5852	63.7796 7793	113
114	76.4477 1437	71.9538 3922	67.8364 9358	64.0590 1402	114
115	76.8711 8052	72.3210 3020	68.1549 4414	64.3352 4255	115
116	77.2914 9431	72.6850 3614	68.4702 4172	64.6083 9807	116
117	77.7086 7922	73.0458 8465	68.7824 1755	64.8785 1478	117
118	78.1227 5853	73.4036 0312	69.0915 0252	65.1456 2648	118
119	78.5337 5536	73.7582 1871	69.3975 2725	65.4097 6660	119
120	78.9416 9267	74.1097 5832	69.7005 2203	65.6709 6821	120
121	79.3465 9322	74.4582 4864	70.0005 1686	65.9292 6399	121
122	79.7484 7962	74.8037 1613	70.2975 4145	66.1846 8627	122
123	80.1473 7432	75.1461 8699	70.5916 2520	66.4372 6702	123
124	80.5432 9957	75.4856 8723	70.8827 9722	66.6870 3784	124
125	80.9362 7749	75.8222 4261	71.1710 8636	66.9340 3000	125
126	81.3263 3001	76.1558 7867	71.4565 2115	67.1782 7442	126
127	81.7134 7892	76.4866 2074	71.7391 2985	67.4198 0165	127
128	82.0977 4583	76.8144 9392	72.0189 4045	67.6586 4193	128
129	82.4791 5219	77.1395 2309	72.2959 8064	67.8948 2514	129
130	82.8577 1929	77.4617 3292	72.5702 7786	68.1283 8086	130
131	83.2334 6828	77.7811 4788	72.8418 5927	68.3593 3830	131
132	83.6064 2013	78.0977 9220	73.1107 5175	68.5877 2638	132
133	83.9765 9566	78.4116 8991	73.3769 8193	68.8135 7368	133
134	84.3440 1554	78.7228 6485	73.6405 7617	69.0369 0846	134
135	84.7087 0029	79.0313 4061	73.9015 6056	69.2577 5867	135
136	85.0706 7026	79.3371 4063	74.1599 6095	69.4761 5196	136
137	85.4299 4567	79.6402 8811	74.4158 0293	69.6921 1566	137
138	85.7865 4657	79.9408 0606	74.6691 1181	69.9056 7680	138
139	86.1404 9288	80.2387 1728	74.9199 1268	70.1168 6210	139
140	86.4918 0434	80.5340 4440	75.1682 3038	70.3256 9800	140
141	86.8405 0059	80.8268 0981	75.4140 8948	70.5322 1063	141
142	87.1866 0108	81.1170 3575	75.6575 1434	70.7364 2584	142
143	87.5301 2514	81.4047 4423	75.8985 2905	70.9383 6918	143
144	87.8710 9195	81.6899 5711	76.1371 5747	71.1380 6594	144
145	88.2095 2055	81.9726 9602	76.3734 2324	71.3355 4110	145
146	88.5454 2982	82.2529 8242	76.6073 4974	71.5308 1939	146
147	88.8788 3854	82.5308 3759	76.8389 6014	71.7239 2523	147
148	89.2097 6530	82.8062 8262	77.0682 7737	71.9148 8280	148
149	89.5382 2858	83.0793 3841	77.2953 2413	72.1037 1599	149
150	89.8642 4673	83.3500 2569	77.5201 2290	72.2904 4845	150

Logarithm of Present Value of 1 per Annum at Compound Interest

$\log a_{\overline{n}|}$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
101	1.849 0801	1.825 2800	1.802 0545	1.779 3953	101
102	1.851 9396	1.827 9423	1.804 5303	1.781 6950	102
103	1.854 7592	1.830 5654	1.806 9677	1.783 9572	103
104	1.857 5398	1.833 1503	1.809 3676	1.786 1827	104
105	1.860 2823	1.835 6976	1.811 7308	1.788 3723	105
106	1.862 9874	1.838 2082	1.814 0579	1.790 5267	106
107	1.865 6557	1.840 6828	1.816 3498	1.792 6467	107
108	1.868 2881	1.843 1220	1.818 6071	1.794 7330	108
109	1.870 8851	1.845 5267	1.820 8306	1.796 7862	109
110	1.873 4476	1.847 8974	1.823 0210	1.798 8071	110
111	1.875 9762	1.850 2348	1.825 1788	1.800 7964	111
112	1.878 4714	1.852 5397	1.827 3046	1.802 7546	112
113	1.880 9340	1.854 8126	1.829 3994	1.804 6823	113
114	1.883 3645	1.857 0539	1.831 4633	1.806 5803	114
115	1.885 7635	1.859 2646	1.833 4973	1.808 4489	115
116	1.888 1317	1.861 4450	1.835 5018	1.810 2890	116
117	1.890 4695	1.863 5957	1.837 4774	1.812 1009	117
118	1.892 7776	1.865 7174	1.839 4247	1.813 8853	118
119	1.895 0564	1.867 8104	1.841 3440	1.815 6426	119
120	1.897 3064	1.869 8754	1.843 2360	1.817 3734	120
121	1.899 5283	1.871 9128	1.845 1012	1.819 0782	121
122	1.901 7224	1.873 9232	1.846 9402	1.820 7575	122
123	1.903 8893	1.875 9070	1.848 7532	1.822 4118	123
124	1.906 0294	1.877 8646	1.850 5409	1.824 0414	124
125	1.908 1432	1.879 7966	1.852 3036	1.825 6470	125
126	1.910 2312	1.881 7034	1.854 0419	1.827 2289	126
127	1.912 2937	1.883 5854	1.855 7561	1.828 7874	127
128	1.914 3313	1.885 4432	1.857 4467	1.830 3233	128
129	1.916 3442	1.887 2769	1.859 1142	1.831 8367	129
130	1.918 3329	1.889 0872	1.860 7588	1.833 3280	130
131	1.920 2980	1.890 8743	1.862 3811	1.834 7979	131
132	1.922 2396	1.892 6388	1.863 9812	1.836 2464	132
133	1.924 1583	1.894 3808	1.865 5599	1.837 6741	133
134	1.926 0543	1.896 1009	1.867 1172	1.839 0813	134
135	1.927 9280	1.897 7994	1.868 6536	1.840 4684	135
136	1.929 7798	1.899 4766	1.870 1695	1.841 8358	136
137	1.931 6101	1.901 1329	1.871 6652	1.843 1836	137
138	1.933 4192	1.902 7685	1.873 1410	1.844 5125	138
139	1.935 2074	1.904 3840	1.874 5973	1.845 8224	139
140	1.936 9749	1.905 9795	1.876 0343	1.847 1140	140
141	1.938 7223	1.907 5555	1.877 4525	1.848 3875	141
142	1.940 4497	1.909 1121	1.878 8521	1.849 6431	142
143	1.942 1575	1.910 6497	1.880 2333	1.850 8812	143
144	1.943 8461	1.912 1687	1.881 5967	1.852 1021	144
145	1.945 5155	1.913 6692	1.882 9423	1.853 3060	145
146	1.947 1661	1.915 1516	1.884 2705	1.854 4932	146
147	1.948 7984	1.916 6162	1.885 5815	1.855 6640	147
148	1.950 4124	1.918 0633	1.886 8757	1.856 8188	148
149	1.952 0085	1.919 4931	1.888 1532	1.857 9577	149
150	1.953 5869	1.920 9057	1.889 4145	1.859 0809	150

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	90.1878 3795	83.6183 6499	77.7426 9594	72.4751 0353	151
152	90.5090 2029	83.8843 7670	77.9630 6529	72.6577 0436	152
153	90.8278 1171	84.1480 8099	78.1812 5276	72.8382 7378	153
154	91.1442 2998	84.4094 9788	78.3972 7996	73.0168 3439	154
155	91.4582 9279	84.6686 4722	78.6111 6828	73.1934 0854	155
156	91.7700 1765	84.9255 4867	78.8229 3889	73.3680 1834	156
157	92.0794 2199	85.1802 2173	79.0326 1276	73.5406 8562	157
158	92.3865 2307	85.4326 8573	79.2402 1065	73.7114 3201	158
159	92.6913 3803	85.6829 5983	79.4457 5312	73 8802 7888	159
160	92.9938 8390	85.9310 6303	79.6492 6052	74.0472 4734	160
161	93.2941 7757	86.1770 1415	79.8507 5299	74.2123 5831	161
162	93.5922 3580	86.4208 3187	80.0502 5048	74.3756 3245	162
163	93.8880 7524	86.6625 3470	80.2477 7275	74.5370 9018	163
164	94.1817 1239	86.9021 4096	80.4433 3936	74.6967 5173	164
165	94.4731 6367	87.1396 6886	80.6369 6966	74.8546 3706	165
166	94.7624 4533	87.3751 3642	80.8286 8284	75.0107 6594	166
167	95.0495 7352	87.6085 6150	81.0184 9786	75.1651 5792	167
168	95.3345 6429	87.8399 6184	81.2064 3352	75.3178 3230	168
169	95.6174 3354	88.0693 5498	81.3925 0844	75.4688 0821	169
170	95.8981 9706	88.2967 5835	81.5767 4103	75.6181 0453	170
171	96.1768 7053	88.5221 8919	81.7591 4953	75.7657 3996	171
172	96.4534 6951	88.7456 6462	81.9397 5201	75.9117 3296	172
173	96.7280 0944	88.9672 0161	82.1185 6635	76.0561 0182	173
174	97.0005 0565	89.1868 1696	82.2956 1025	76.1988 6459	174
175	97.2709 7335	89.4045 2735	82.4709 0123	76.3400 3915	175
176	97.5394 2764	89.6203 4929	82.6444 5667	76.4796 4317	176
177	97.8058 8352	89.8342 9917	82.8162 9373	76.6176 9411	177
178	98.0703 5585	90.0463 9323	82.9864 2944	76.7542 0925	178
179	98.3328 5940	90.2566 4757	83.1548 8063	76.8892 0569	179
180	98.5934 0884	90.4650 7813	83.3216 6399	77.0227 0031	180
181	98.8520 1869	90.6717 0075	83.4867 9603	77.1547 0982	181
182	99.1087 0342	90.8765 3110	83.6502 9310	77.2852 5075	182
183	99.3634 7734	91.0795 8474	83.8121 7138	77.4143 3943	183
184	99.6163 5468	91.2808 7706	83.9724 4691	77.5419 9202	184
185	99.8673 4956	91.4804 2336	84.1311 3556	77.6682 2450	185
186	100.1164 7599	91.6782 3877	84.2882 5303	77.7930 5266	186
187	100.3637 4788	91.8743 3831	84.4438 1488	77.9164 9212	187
188	100.6091 7904	92.0687 3686	84.5978 3651	78.0385 5834	188
189	100.8527 8316	92.2614 4918	84.7503 3318	78.1592 6659	189
190	101.0945 7386	92.4524 8989	84.9013 1998	78.2786 3198	190
191	101.3345 6462	92.6418 7350	85.0508 1186	78.3966 6945	191
192	101.5727 6886	92.8296 1438	85.1988 2363	78.5133 9377	192
193	101.8091 9986	93.0157 2677	85.3453 6993	78.6288 1955	193
194	102.0438 7083	93.2002 2480	85.4904 6528	78.7429 6123	194
195	102.2767 9487	93.3831 2248	85.6341 2404	78.8558 3311	195
196	102.5078 9849	93.5644 3368	85.7763 6043	78.9674 4931	196
197	102.7374 5407	93.7441 7218	85.9171 8855	79.0778 2379	197
198	102.9652 1496	93.9223 5160	86.0566 2232	79.1869 7037	198
199	103.1912 8036	94.0989 8548	86.1946 7557	79.2949 0272	199
200	103.4156 6289	94.2740 8721	86.3313 6195	79.4016 3433	200

$\log a_{\overline{n}|}$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	1.955 1480	1.922 3017	1.890 6596	1.860 1888	151
152	1.956 6919	1.923 6811	1.891 8889	1.861 2817	152
153	1.958 2189	1.925 0442	1.893 1026	1.862 3596	153
154	1.959 7292	1.926 3913	1.894 3010	1.863 4230	154
155	1.961 2231	1.927 7226	1.895 4842	1.864 4719	155
156	1.962 7008	1.929 0384	1.896 6527	1.865 5068	156
157	1.964 1626	1.930 3387	1.897 8064	1.866 5276	157
158	1.965 6087	1.931 6241	1.898 9456	1.867 5348	158
159	1.967 0392	1.932 8945	1.900 0707	1.868 5285	159
160	1.968 4544	1.934 1502	1.901 1817	1.869 5089	160
161	1.969 8545	1.935 3915	1.902 2785	1.870 4762	161
162	1.971 2398	1.936 6185	1.903 3627	1.871 4307	162
163	1.972 6104	1.937 8314	1.904 4330	1.872 3724	163
164	1.973 9666	1.939 0305	1.905 4901	1.873 3017	164
165	1.975 3085	1.940 2159	1.906 5342	1.874 2187	165
166	1.976 6362	1.941 3879	1.907 5655	1.875 1236	166
167	1.977 9502	1.942 5466	1.908 5842	1.876 0166	167
168	1.979 2504	1.943 6921	1.909 5904	1.876 8978	168
169	1.980 5371	1.944 8248	1.910 5844	1.877 7675	169
170	1.981 8104	1.945 9447	1.911 5663	1.878 6258	170
171	1.983 0706	1.947 0521	1.912 5364	1.879 4729	171
172	1.984 3178	1.948 1472	1.913 4947	1.880 3089	172
173	1.985 5522	1.949 2299	1.914 4414	1.881 1341	173
174	1.986 7740	1.950 3007	1.915 3766	1.881 9485	174
175	1.987 9833	1.951 3595	1.916 3008	1.882 7524	175
176	1.989 1802	1.952 4066	1.917 2137	1.883 5459	176
177	1.990 3650	1.953 4422	1.918 1158	1.884 3291	177
178	1.991 5378	1.954 4663	1.919 0071	1.885 1022	178
179	1.992 6987	1.955 4792	1.919 8878	1.885 8654	179
180	1.993 8479	1.956 4810	1.920 7580	1.886 6187	180
181	1.994 9856	1.957 4718	1.921 6178	1.887 3624	181
182	1.996 1118	1.958 4517	1.922 4674	1.888 0966	182
183	1.997 2268	1.959 4210	1.923 3071	1.888 8214	183
184	1.998 3307	1.960 3798	1.924 1368	1.889 5370	184
185	1.999 4235	1.961 3282	1.924 9568	1.890 2434	185
186	2.000 5056	1.962 2662	1.925 7670	1.890 9408	186
187	2.001 5769	1.963 1942	1.926 5679	1.891 6294	187
188	2.002 6376	1.964 1122	1.927 3593	1.892 3092	188
189	2.003 6879	1.965 0203	1.928 1414	1.892 9805	189
190	2.004 7279	1.965 9186	1.928 9144	1.893 6432	190
191	2.005 7576	1.966 8073	1.929 6784	1.894 2976	191
192	2.006 7773	1.967 6866	1.930 4336	1.894 9438	192
193	2.007 7870	1.968 5564	1.931 1800	1.895 5818	193
194	2.008 7869	1.969 4170	1.931 9177	1.896 2118	194
195	2.009 7771	1.970 2684	1.932 6468	1.896 8338	195
196	2.010 7577	1.971 1108	1.933 3676	1.897 4481	196
197	2.011 7288	1.971 9443	1.934 0801	1.898 0547	197
198	2.012 6905	1.972 7690	1.934 7843	1.898 6537	198
199	2.013 6430	1.973 5849	1.935 4804	1.899 2453	199
200	2.014 5863	1.974 3923	1.936 1686	1.899 8294	200

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.9876 5432	0.9864 3650	0.9852 2167	0.9828 0098	1
2	1.9631 1538	1.9594 9346	1.9558 8342	1.9486 9875	2
3	2.9265 3371	2.9193 5237	2.9122 0042	2.8979 8403	3
4	3.8780 5798	3.8661 9222	3.8543 8465	3.8309 4254	4
5	4.8178 3504	4.8001 8962	4.7826 4497	4.7478 5508	5
6	5.7460 0992	5.7215 1874	5.6971 8717	5.6489 9762	6
7	6.6627 2585	6.6303 5140	6.5982 1396	6.5346 4139	7
8	7.5681 2429	7.5268 5712	7.4859 2508	7.4050 5297	8
9	8.4623 4498	8.4112 0308	8.3605 1732	8.2604 9432	9
10	9.3455 2591	9.2835 5421	9.2221 8455	9.1012 2291	10
11	10.2178 0337	10.1440 7320	10.0711 1779	9.9274 9181	11
12	11.0793 1197	10.9929 2054	10.9075 0521	10.7395 4969	12
13	11.9301 8466	11.8302 5454	11.7315 3222	11.5376 4097	13
14	12.7705 5275	12.6562 3136	12.5433 8150	12.3220 0587	14
15	13.6005 4592	13.4710 0504	13.3432 3301	13.0928 8046	15
16	14.4202 9227	14.2747 2754	14.1312 6405	13.8504 9677	16
17	15.2299 1829	15.0675 4874	14.9076 4931	14.5950 8282	17
18	16.0295 4893	15.8496 1651	15.6725 6089	15.3268 6272	18
19	16.8193 0759	16.6210 7671	16.4261 6837	16.0460 5673	19
20	17.5993 1613	17.3820 7320	17.1686 3879	16.7528 8130	20
21	18.3696 9495	18.1327 4792	17.9001 3673	17.4475 4919	21
22	19.1305 6291	18.8732 4086	18.6208 2437	18.1302 6948	22
23	19.8820 3744	19.6036 9012	19.3308 6145	18.8012 4764	23
24	20.6242 3451	20.3242 3193	20.0304 0537	19.4606 8565	24
25	21.3572 6865	21.0350 0067	20.7196 1120	20.1087 8196	25
26	22.0812 5299	21.7361 2890	21.3986 3172	20.7457 3166	26
27	22.7962 9925	22.4277 4737	22.0676 1746	21.3717 2644	27
28	23.5025 1778	23.1099 8508	22.7267 1671	21.9869 5474	28
29	24.2000 1756	23.7829 6925	23.3760 7558	22.5916 0171	29
30	24.8889 0623	24.4468 2540	24.0158 3801	23.1858 4934	30
31	25.5692 9010	25.1016 7734	24.6461 4582	23.7698 7650	31
32	26.2412 7418	25.7476 4719	25.2671 3874	24.3438 5897	32
33	26.9049 6215	26.3848 5543	25.8789 5442	24.9079 6951	33
34	27.5604 5644	27.0134 2089	26.4817 2849	25.4623 7789	34
35	28.2078 5822	27.6334 6080	27.0755 9458	26.0072 5100	35
36	28.8472 6737	28.2450 9080	27.6606 8431	26.5427 5283	36
37	29.4787 8259	28.8484 2496	28.2371 2740	27.0690 4455	37
38	30.1025 0133	29.4435 7579	28.8050 5163	27.5862 8457	38
39	30.7185 1983	30.0306 5430	29.3645 8288	28.0946 2857	39
40	31.3269 3316	30.6097 6996	29.9158 4520	28.5942 2955	40
41	31.9278 3522	31.1810 3079	30.4589 6079	29.0852 3789	41
42	32.5213 1874	31.7445 4332	30.9940 5004	29.5678 0135	42
53	33.1074 7530	32.3004 1264	31.5212 3157	30.0420 6522	43
44	33.6863 9536	32.8487 4243	32.0406 2223	30.5081 7221	44
45	34.2581 6825	33.3896 3495	32.5523 3718	30.9662 6261	45
46	34.8228 8222	33.9231 9108	33.0564 8983	31.4164 7431	46
47	35.3806 2442	34.4495 1031	33.5531 9195	31.8589 4281	47
48	35.9314 8091	34.9686 9081	34.0425 5365	32.2938 0129	48
49	36.4755 3670	35.4808 2941	34.5246 8339	32.7211 8063	49
50	37.0128 7574	35.9860 2161	34.9996 8807	33.1412 0946	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	9.994 6049	9.994 0692	9.993 5339	9.992 4656	1
2	0.292 9457	0.292 1439	0.291 3429	0.289 7447	2
3	0.466 3535	0.465 2865	0.464 2213	0.462 0960	3
4	0.588 6142	0.587 2834	0.585 9551	0.583 3056	4
5	0.682 8519	0.681 2584	0.679 6682	0.676 4975	5
6	0.759 3663	0.757 5113	0.755 6605	0.751 9714	6
7	0.823 6519	0.821 5365	0.819 4264	0.815 2218	7
8	0.878 9882	0.876 6137	0.874 2455	0.869 5282	8
9	0.927 4906	0.924 8582	0.922 2332	0.917 0060	9
10	0.970 6037	0.967 7142	0.964 8338	0.959 0998	10
11	1.009 3574	1.006 2123	1.003 0777	0.996 8395	11
12	1.044 5127	1.041 1131	1.037 7254	1.030 9861	12
13	1.076 6473	1.072 9941	1.069 3547	1.062 1170	13
14	1.106 2096	1.102 3044	1.098 4146	1.090 6814	14
15	1.133 5564	1.129 4000	1.125 2611	1.117 0352	15
16	1.158 9740	1.154 5678	1.150 1810	1.141 4654	16
17	1.182 6976	1.178 0426	1.173 4092	1.164 2065	17
18	1.204 9213	1.200 0188	1.195 1399	1.185 4533	18
19	1.225 8081	1.220 6591	1.215 5363	1.205 3683	19
20	1.245 4959	1.240 1015	1.234 7359	1.224 0895	20
21	1.264 1018	1.258 4637	1.252 8563	1.241 7345	21
22	1.281 7277	1.275 8465	1.269 9989	1.258 4043	22
23	1.298 4609	1.292 3378	1.286 2512	1.274 1866	23
24	1.314 3777	1.308 0142	1.301 6897	1.289 1582	24
25	1.329 5457	1.322 9425	1.316 3816	1.303 3859	25
26	1.344 0236	1.337 1822	1.330 3860	1.316 9288	26
27	1.357 8643	1.350 7856	1.343 7555	1.329 8396	27
28	1.371 1144	1.363 7996	1.356 5367	1.342 1651	28
29	1.383 8157	1.376 2660	1.368 7716	1.353 9471	29
30	1.396 0056	1.388 2225	1.380 4978	1.365 2230	30
31	1.407 7186	1.399 7027	1.391 7490	1.376 0269	31
32	1.418 9848	1.410 7375	1.402 5561	1.386 3894	32
33	1.429 8323	1.421 3547	1.412 9467	1.396 3384	33
34	1.440 2864	1.431 5796	1.422 9464	1.405 8990	34
35	1.450 3701	1.441 4353	1.432 5780	1.415 0945	35
36	1.460 1047	1.450 9430	1.441 8629	1.423 9459	36
37	1.469 5094	1.460 1221	1.450 8205	1.432 4729	37
38	1.478 6026	1.468 9906	1.459 4687	1.440 6932	38
39	1.487 4002	1.477 5648	1.467 8238	1.448 6233	39
40	1.495 9178	1.485 8600	1.475 9013	1.456 2784	40
41	1.504 1695	1.493 8904	1.483 7150	1.463 6726	41
42	1.512 1681	1.501 6691	1.491 2783	1.470 8190	42
43	1.519 9260	1.509 2081	1.498 6032	1.477 7297	43
44	1.527 4545	1.516 5188	1.505 7010	1.484 4162	44
45	1.534 7641	1.523 6117	1.512 5822	1.490 8888	45
46	1.541 8647	1.530 4967	1.519 2567	1.497 1574	46
47	1.548 7654	1.537 1830	1.525 7339	1.503 2313	47
48	1.555 4751	1.543 6794	1.532 0221	1.509 1191	48
49	1.562 0017	1.549 9938	1.538 1297	1.514 8290	49
50	1.568 3528	1.556 1339	1.544 0641	1.520 3684	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	37.5435 8099	36.4843 6164	35.4676 7298	33.5540 1421	51
52	38.0677 3431	36.9759 4243	35.9287 4185	33.9597 1913	52
53	38.5854 1660	37.4608 5566	36.3829 9690	34.3584 4633	53
54	39.0967 0776	37.9391 9178	36.8305 3882	34.7503 1579	54
55	39.6016 8667	38.4110 3998	37.2714 6681	35.1354 4550	55
56	40.1004 3128	38.8764 8826	37.7058 7863	35.5139 5135	56
57	40.5930 1855	39.3356 2344	38.1338 7058	35.8859 4727	57
58	41.0795 2449	39.7885 3114	38.5555 3751	36.2515 4523	58
59	41.5600 2419	40.2352 9582	38.9709 7292	36.6108 5526	59
60	42.0345 9179	40.6760 0081	39.3802 6889	36.9639 8552	60
61	42.5033 0054	41.1107 2829	39.7835 1614	37.3110 4228	61
62	42.9662 2275	41.5395 5935	40.1808 0408	37.6521 3000	62
63	43.4234 2988	41.9625 7396	40.5722 2077	37.9873 5135	63
64	43.8749 9247	42.3798 5101	40.9578 5298	38.3168 0723	64
65	44.3209 8022	42.7914 6832	41.3377 8618	38.6405 9678	65
66	44.7614 6195	43.1975 0266	41.7121 0461	38.9588 1748	66
67	45.1965 0563	43.5980 2975	42.0808 9125	39.2715 6509	67
68	45.6261 7840	43.9931 2429	42.4442 2783	39.5789 3375	68
69	46.0505 4656	44.3828 5997	42.8021 9490	39.8810 1597	69
70	46.4696 7562	44.7673 0946	43.1548 7183	40.1779 0267	70
71	46.8836 3024	45.1465 4448	43.5023 3678	40.4696 8321	71
72	47.2924 7431	45.5206 3573	43.8446 6677	40.7564 4542	72
73	47.6962 7093	45.8896 5300	44.1819 3771	41.0382 7560	73
74	48.0950 8240	46.2536 6511	44.5142 2434	41.3152 5857	74
75	48.4889 7027	46.6127 3994	44.8416 0034	41.5874 7771	75
76	48.8779 9533	46.9669 4445	45.1641 3826	41.8550 1495	76
77	49.2622 1761	47.3163 4471	45.4819 0962	42.1179 5081	77
78	49.6416 9640	47.6610 0588	45.7949 8485	42.3763 6443	78
79	50.0164 9027	48.0009 9224	46.1034 3335	42.6303 3359	79
80	50.3866 5706	48.3363 6719	46.4073 2349	42.8799 3474	80
81	50.7522 5389	48.6671 9328	46.7067 2265	43.1252 4298	81
82	51.1133 3717	48.9935 3221	47.0016 9720	43.3663 3217	82
83	51.4699 6264	49.3154 4484	47.2923 1251	43.6032 7486	83
84	51.8221 8532	49.6329 9122	47.5786 3301	43.8361 4237	84
85	52.1700 5958	49.9462 3055	47.8607 2218	44.0650 0479	85
86	52.5136 3909	50.2552 2125	48.1386 4254	44.2899 3099	86
87	52.8529 7688	50.5600 2096	48.4124 5571	44.5109 8869	87
88	53.1881 2531	50.8606 8653	48.6822 2237	44.7282 4441	88
89	53.5191 3611	51.1572 7401	48.9480 0234	44.9417 6355	89
90	53.8460 6035	51.4498 3873	49.2098 5452	45.1516 1037	90
91	54.1689 4850	51.7384 3524	49.4678 3696	45.3578 4803	91
92	54.4878 5037	52.0231 1738	49.7220 0686	45.5605 3860	92
93	54.8028 1518	52.3039 3823	49.9724 2055	45.7597 4310	93
94	55.1138 9154	52.5809 5016	50.2191 3355	45.9555 2147	94
95	55.4211 2744	52.8542 0484	50.4622 0054	46.1479 3265	95
96	55.7245 7031	53.1237 5324	50.7016 7541	46.3370 3455	96
97	56.0242 6698	53.3896 4561	50.9376 1124	46.5228 8408	97
98	56.3202 6368	53.6519 3155	51.1700 6034	46.7055 3718	98
99	56.6126 0610	53.9106 5998	51.3990 7422	46.8850 4882	99
100	56.9013 3936	54.1658 7914	51.6247 0367	47.0614 7304	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$log\ a_{\overline{n}|}$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	1.574 5356	1.562 1067	1.549 8326	1.525 7444	51
52	1.580 5570	1.567 9192	1.555 4419	1.530 9641	52
53	1.586 4232	1.573 5777	1.560 8985	1.536 0335	53
54	1.592 1401	1.579 0881	1.566 2080	1.540 9588	54
55	1.597 7137	1.584 4561	1.571 3764	1.545 7455	55
56	1.603 1490	1.589 6870	1.576 4091	1.550 3989	56
57	1.608 4513	1.594 7861	1.581 3109	1.554 9244	57
58	1.613 6253	1.599 7579	1.586 0868	1.559 3266	58
59	1.618 6757	1.604 6072	1.590 7411	1.563 6099	59
60	1.623 6068	1.609 3382	1.595 2786	1.567 7788	60
61	1.628 4226	1.613 9551	1.599 7031	1.571 8373	61
62	1.633 1271	1.618 4619	1.604 0185	1.575 7895	62
63	1.637 7241	1.622 8621	1.608 2287	1.579 6389	63
64	1.642 2170	1.627 1595	1.612 3371	1.583 3893	64
65	1.646 6094	1.631 3572	1.616 3472	1.587 0438	65
66	1.650 9042	1.635 4586	1.620 2620	1.590 6058	66
67	1.655 1048	1.639 4696	1.624 0849	1.594 0782	67
68	1.659 2141	1.643 3848	1.627 8186	1.597 4640	68
69	1.663 2348	1.647 2153	1.631 4660	1.600 7662	69
70	1.667 1697	1.650 9610	1.635 0298	1.603 9872	70
71	1.671 0212	1.654 6245	1.638 5126	1.607 1297	71
72	1.674 7920	1.658 2083	1.641 9168	1.610 1963	72
73	1.678 4844	1.661 7148	1.645 2448	1.613 1891	73
74	1.682 1006	1.665 1462	1.648 4987	1.616 1105	74
75	1.685 6429	1.668 5047	1.651 6811	1.618 9626	75
76	1.689 1134	1.671 7923	1.654 7937	1.621 7474	76
77	1.692 5139	1.675 0112	1.657 8387	1.624 4671	77
78	1.695 8466	1.678 1633	1.660 8179	1.627 1236	78
79	1.699 1132	1.681 2502	1.663 7332	1.629 7186	79
80	1.702 3155	1.684 2740	1.666 5865	1.632 2540	80
81	1.705 4553	1.687 2363	1.669 3793	1.634 7315	81
82	1.708 5342	1.690 1387	1.672 1135	1.637 1527	82
83	1.711 5538	1.692 9829	1.674 7905	1.639 5190	83
84	1.714 5157	1.695 7704	1.677 4119	1.641 8322	84
85	1.717 4213	1.698 5027	1.679 9792	1.644 0938	85
86	1.720 2721	1.701 1812	1.682 4938	1.646 3050	86
87	1.723 0694	1.703 8073	1.684 9571	1.648 4673	87
88	1.725 8147	1.706 3822	1.687 3704	1.650 5818	88
89	1.728 5091	1.708 9074	1.689 7350	1.652 6500	89
90	1.731 1538	1.711 3840	1.692 0520	1.654 6732	90
91	1.733 7504	1.713 8133	1.694 3229	1.656 6524	91
92	1.736 2997	1.716 1964	1.696 5486	1.658 5888	92
93	1.738 8028	1.718 5344	1.698 7304	1.660 4835	93
94	1.741 2610	1.720 8284	1.700 8692	1.662 3376	94
95	1.743 6754	1.723 0796	1.702 9662	1.664 1522	95
96	1.746 0467	1.725 2888	1.705 0223	1.665 9281	96
97	1.748 3762	1.727 4570	1.707 0385	1.667 6665	97
98	1.750 6646	1.729 5853	1.709 0159	1.669 3684	98
99	1.752 9131	1.731 6746	1.710 9552	1.671 0343	99
100	1.755 1224	1.733 7258	1.712 8575	1.672 6655	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	2%	2¼%	2½%	2¾%	n
1	0.9803 9216	0.9779 9511	0.9756 0976	0.9732 3601	1
2	1.9415 6094	1.9344 6955	1.9274 2415	1.9204 2434	2
3	2.8838 8327	2.8698 9687	2.8560 2356	2.8422 6213	3
4	3.8077 2870	3.7847 4021	3.7619 7421	3.7394 2787	4
5	4.7134 5951	4.6794 5253	4.6458 2850	4.6125 8186	5
6	5.6014 3089	5.5544 7680	5.5081 2536	5.4623 6678	6
7	6.4719 9107	6.4102 4626	6.3493 9060	6.2894 0806	7
8	7.3254 8144	7.2471 8461	7.1701 3717	7.0943 1441	8
9	8.1622 3671	8.0657 0622	7.9708 6553	7.8776 7826	9
10	8.9825 8501	8.8662 1635	8.7520 6393	8.6400 7616	10
11	9.7868 4805	9.6491 1134	9.5142 0871	9.3820 6926	11
12	10.5753 4122	10.4147 7882	10.2577 6460	10.1042 0366	12
13	11.3483 7375	11.1635 9787	10.9831 8497	10.8070 1086	13
14	12.1062 4877	11.8959 3924	11.6909 1217	11.4910 0814	14
15	12.8492 6350	12.6121 6551	12.3813 7773	12.1566 9892	15
16	13.5777 0931	13.3126 3131	13.0550 0266	12.8045 7315	16
17	14.2918 7188	13.9976 8343	13.7121 9772	13.4351 0769	17
18	14.9920 3125	14.6676 6106	14.3533 6363	14.0487 6661	18
19	15.6784 6201	15.3228 9590	14.9788 9134	14.6460 0157	19
20	16.3514 3334	15.9637 1237	15.5891 6229	15.2272 5213	20
21	17.0112 0916	16.5904 2775	16.1845 4857	15.7929 4612	21
22	17.6580 4820	17.2033 5232	16.7654 1324	16.3434 9987	22
23	18.2922 0412	17.8027 8955	17.3321 1048	16.8793 1861	23
24	18.9139 2560	18.3890 3624	17.8849 8583	17.4007 9670	24
25	19.5234 5647	18.9623 8263	18.4243 7642	17.9083 1795	25
26	20.1210 3576	19.5231 1260	18.9506 1114	18.4022 5592	26
27	20.7068 9780	20.0715 0376	19.4640 1087	18.8829 7413	27
28	21.2812 7236	20.6078 2764	19.9648 8866	19.3508 2640	28
29	21.8443 8466	21.1323 4977	20.4535 4991	19.8061 5708	29
30	22.3964 5555	21.6453 2985	20.9302 9259	20.2493 0130	30
31	22.9377 0152	22.1470 2186	21.3954 0741	20.6805 8520	31
32	23.4683 3482	22.6376 7419	21.8491 7796	21.1003 2623	32
33	23.9885 6355	23.1175 2977	22.2918 8094	21.5088 3332	33
34	24.4985 9172	23.5868 2618	22.7237 8628	21.9064 0712	34
35	24.9986 1933	24.0457 9577	23.1451 5734	22.2933 4026	35
36	25.4888 4248	24.4946 6579	23.5562 5107	22.6699 1753	36
37	25.9694 5341	24.9336 5848	23.9573 1812	23.0364 1609	37
38	26.4406 4060	25.3629 9118	24.3486 0304	23.3931 0568	38
39	26.9025 8883	25.7828 7646	24.7303 4443	23.7402 4884	39
40	27.3554 7924	26.1935 2221	25.1027 7505	24.0781 0106	40
41	27.7994 8945	26.5951 3174	25.4661 2200	24.4069 1101	41
42	28.2347 9358	26.9879 0390	25.8206 0683	24.7269 2069	42
43	28.6615 6233	27.3720 3316	26.1664 4569	25.0383 6563	43
44	29.0799 6307	27.7477 0969	26.5038 4945	25.3414 7507	44
45	29.4901 5987	28.1151 1950	26.8330 2386	25.6364 7209	45
46	29.8923 1360	28.4744 4450	27.1541 6962	25.9235 7381	46
47	30.2865 8196	28.8258 6259	27.4674 8255	26.2029 9154	47
48	30.6731 1957	29.1695 4777	27.7731 5371	26.4749 3094	48
49	31.0520 7801	29.5056 7019	28.0713 6947	26.7395 9215	49
50	31.4236 0589	29.8343 9627	28.3623 1168	26.9971 6998	50

$log\ a_{\overline{n}|}$

n	2%	2¼%	2½%	2¾%	n
1	9.991 3999	9.990 3366	9.989 2761	9.988 2182	1
2	0.288 1510	0.286 5619	0.284 9773	0.283 3972	2
3	0.459 9777	0.457 8663	0.455 7618	0.453 6641	3
4	0.580 6660	0.578 0361	0.575 4158	0.572 8051	4
5	0.673 3398	0.670 1951	0.667 0632	0.663 9441	5
6	0.748 2990	0.744 6432	0.741 0038	0.737 3808	6
7	0.811 0379	0.806 8747	0.802 7321	0.798 6098	7
8	0.864 8362	0.860 1693	0.855 5275	0.850 9104	8
9	0.911 8092	0.906 6424	0.901 5055	0.896 3982	9
10	0.953 4014	0.947 7383	0.942 1105	0.936 5176	10
11	0.990 6429	0.984 4873	0.978 3727	0.972 2987	11
12	1.024 2944	1.017 6501	1.011 0528	1.004 5021	12
13	1.054 9336	1.047 8042	1.040 7283	1.033 7056	13
14	1.083 0096	1.075 3988	1.067 8484	1.060 3581	14
15	1.108 8782	1.100 7897	1.092 7690	1.084 8157	15
16	1.132 8265	1.124 2639	1.115 7770	1.107 3651	16
17	1.155 0891	1.146 0562	1.137 1071	1.128 2413	17
18	1.175 8605	1.166 3609	1.156 9537	1.147 6382	18
19	1.195 3035	1.185 3409	1.175 4796	1.165 7190	19
20	1.213 5558	1.203 1339	1.192 8228	1.182 6215	20
21	1.230 7352	1.219 8576	1.209 1006	1.198 4631	21
22	1.246 9427	1.235 6131	1.224 4143	1.213 3451	22
23	1.262 2660	1.250 4881	1.238 8515	1.227 3549	23
24	1.276 7817	1.264 5589	1.252 4886	1.240 5691	24
25	1.290 5567	1.277 8929	1.265 3928	1.253 0548	25
26	1.303 6504	1.290 5491	1.277 6232	1.264 8710	26
27	1.316 1151	1.302 5799	1.289 2323	1.276 0704	27
28	1.327 9975	1.314 0322	1.300 2669	1.286 6995	28
29	1.339 3398	1.324 9478	1.310 7687	1.296 8002	29
30	1.350 1793	1.335 3642	1.320 7753	1.306 4100	30
31	1.360 5499	1.345 3153	1.330 3206	1.315 5628	31
32	1.370 4823	1.354 8319	1.339 4351	1.324 2892	32
33	1.380 0042	1.363 9414	1.348 1467	1.332 6168	33
34	1.389 1411	1.372 6695	1.356 4807	1.340 5712	34
35	1.397 9160	1.381 0391	1.364 4601	1.348 1751	35
36	1.406 3501	1.389 0716	1.372 1061	1.355 4499	36
37	1.414 4628	1.396 7860	1.379 4382	1.362 4149	37
38	1.422 2720	1.404 2005	1.386 4740	1.369 0879	38
39	1.429 7941	1.411 3313	1.393 2302	1.375 4853	39
40	1.437 0443	1.418 1939	1.399 7217	1.381 6222	40
41	1.444 0368	1.424 8022	1.405 9628	1.387 5128	41
42	1.450 7846	1.431 1692	1.411 9665	1.393 1700	42
43	1.457 2998	1.437 3070	1.417 7447	1.398 6060	43
44	1.463 5938	1.443 2271	1.423 3089	1.403 8319	44
45	1.469 6772	1.448 9399	1.428 6696	1.408 8583	45
46	1.475 5596	1.454 4553	1.433 8365	1.413 6948	46
47	1.481 2503	1.459 7823	1.438 8188	1.418 3509	47
48	1.486 7580	1.464 9297	1.443 6252	1.422 8349	48
49	1.492 0907	1.469 9054	1.448 2636	1.427 1548	49
50	1.497 2560	1.474 7172	1.452 7417	1.431 3182	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	2%	2¼%	2½%	2¾%	n
51	31.7878 4892	30.1558 8877	28.6461 5774	27.2478 5400	51
52	32.1449 4992	30.4703 0687	28.9230 8072	27.4918 2871	52
53	32.4950 4894	30.7778 0623	29.1932 4948	27.7292 7368	53
54	32.8382 8327	31.0785 3910	29.4568 2876	27.9603 6368	54
55	33.1747 8752	31.3726 5438	29.7139 7928	28.1852 6879	55
56	33.5046 9365	31.6602 9768	29.9648 5784	28.4041 5454	56
57	33.8281 3103	31.9416 1142	30.2096 1740	28.6171 8203	57
58	34.1452 2650	32.2167 3489	30.4484 0722	28.8245 0806	58
59	34.4561 0441	32.4858 0429	30.6813 7290	29.0262 8522	59
60	34.7608 8668	32.7489 5285	30.9086 5649	29.2226 6201	60
61	35.0596 9282	33.0063 1086	31.1303 9657	29.4137 8298	61
62	35.3526 4002	33.2580 0573	31.3467 2836	29.5997 8879	62
63	35.6398 4316	33.5041 6208	31.5577 8377	29.7808 1634	63
64	35.9214 1486	33.7449 0179	31.7636 9148	29.9569 9887	64
65	36.1974 6555	33.9803 4405	31.9645 7705	30.1284 6605	65
66	36.4681 0348	34.2106 0543	32.1605 6298	30.2953 4409	66
67	36.7334 3478	34.4357 9993	32.3517 6876	30.4577 5581	67
68	36.9935 6351	34.6560 3905	32.5383 1099	30.6158 2074	68
69	37.2485 9168	34.8714 3183	32.7203 0340	30.7696 5522	69
70	37.4986 1929	35.0820 8492	32.8978 5698	30.9193 7247	70
71	37.7437 4441	35.2881 0261	33.0710 7998	31.0650 8270	71
72	37.9840 6314	35.4895 8691	33.2400 7803	31.2068 9314	72
73	38.2196 6975	35.6866 3756	33.4049 5417	31.3449 0816	73
74	38.4506 5662	35.8793 5214	33.5658 0895	31.4792 2936	74
75	38.6771 1433	36.0678 2605	33.7227 4044	31.6099 5558	75
76	38.8991 3170	36.2521 5262	33.8758 4433	31.7371 8304	76
77	39.1167 9578	36.4324 2310	34.0252 1398	31.8610 0540	77
78	39.3301 9194	36.6087 2675	34.1709 4047	31.9815 1377	78
79	39.5394 0386	36.7811 5085	34.3131 1265	32.0987 9685	79
80	39.7445 1359	36.9497 8079	34.4518 1722	32.2129 4098	80
81	39.9456 0156	37.1147 0004	34.5871 3875	32.3240 3015	81
82	40.1427 4663	37.2759 9026	34.7191 5976	32.4321 4613	82
83	40.3360 2611	37.4337 3130	34.8479 6074	32.5373 6850	83
84	40.5255 1579	37.5880 0127	34.9736 2023	32.6397 7469	84
85	40.7112 8999	37.7388 7655	35.0962 1486	32.7394 4009	85
86	40.8934 2156	37.8864 3183	35.2158 1938	32.8364 3804	86
87	41.0719 8192	38.0307 4018	35.3325 0671	32.9308 3994	87
88	41.2470 4110	38.1718 7304	35.4463 4801	33.0227 1527	88
89	41.4186 6774	38.3099 0028	35.5574 1269	33.1121 3165	89
90	41.5869 2916	38.4448 9025	35.6657 6848	33.1991 5489	90
91	41.7518 9133	38.5769 0978	35.7714 8144	33.2838 4905	91
92	41.9136 1895	38.7060 2423	35.8746 1604	33.3662 7644	92
93	42.0721 7545	38.8322 9754	35.9752 3516	33.4464 9776	93
94	42.2276 2299	38.9557 9221	36.0734 0016	33.5245 7202	94
95	42.3800 2254	39.0765 6940	36.1691 7089	33.6005 5671	95
96	42.5294 3386	39.1946 8890	36.2626 0574	33.6745 0775	96
97	42.6759 1555	39.3102 0920	36.3537 6170	33.7464 7956	97
98	42.8195 2505	39.4231 8748	36.4426 9434	33.8165 2512	98
99	42.9603 1867	39.5336 7968	36.5294 5790	33.8846 9598	99
100	43.0983 5164	39.6417 4052	36.6141 0526	33.9510 4232	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	2%	2¼%	2½%	2¾%	n
51	1.502 2611	1.479 3721	1.457 0664	1.435 3322	51
52	1.507 1127	1.483 8769	1.461 2445	1.439 2036	52
53	1.511 8171	1.488 2377	1.465 2824	1.442 9384	53
54	1.516 3803	1.492 4606	1.469 1860	1.446 5428	54
55	1.520 8081	1.496 5512	1.472 9608	1.450 0221	55
56	1.525 1056	1.500 5150	1.476 6122	1.453 3817	56
57	1.529 2779	1.504 3567	1.480 1452	1.456 6268	57
58	1.533 3300	1.508 0814	1.483 5646	1.459 7619	58
59	1.537 2661	1.511 6935	1.486 8747	1.462 7915	59
60	1.541 0909	1.515 1973	1.490 0802	1.465 7197	60
61	1.544 8081	1.518 5970	1.493 1847	1.468 5508	61
62	1.548 4218	1.521 8962	1.496 1922	1.471 2886	62
63	1.551 9357	1.525 0987	1.499 1064	1.473 9366	63
64	1.555 3534	1.528 2081	1.501 9309	1.476 4983	64
65	1.558 6782	1.531 2277	1.504 6689	1.478 9770	65
66	1.561 9132	1.534 1608	1.507 3235	1.481 3758	66
67	1.565 0615	1.537 0101	1.509 8980	1.483 6979	67
68	1.568 1261	1.539 7789	1.512 3950	1.485 9458	68
69	1.571 1098	1.542 4697	1.514 8172	1.488 1226	69
70	1.574 0152	1.545 0852	1.517 1676	1.490 2306	70
71	1.576 8449	1.547 6282	1.519 4483	1.492 2725	71
72	1.579 6013	1.550 1009	1.521 6620	1.494 2504	72
73	1.582 2869	1.552 5056	1.523 8108	1.496 1670	73
74	1.584 9037	1.554 8445	1.525 8971	1.498 0240	74
75	1.587 4540	1.557 1200	1.527 9228	1.499 8239	75
76	1.589 9399	1.559 3338	1.529 8900	1.501 5683	76
77	1.592 2632	1.561 4879	1.531 8008	1.503 2595	77
78	1.594 7260	1.563 5846	1.533 6569	1.504 8989	78
79	1.597 0301	1.565 6252	1.535 4600	1.506 4888	79
80	1.599 2772	1.567 6118	1.537 2121	1.508 0303	80
81	1.601 4689	1.569 5459	1.538 9146	1.509 5255	81
82	1.603 6071	1.571 4291	1.540 5692	1.510 9757	82
83	1.605 6931	1.573 2630	1.542 1774	1.512 3824	83
84	1.607 7285	1.575 0492	1.543 7405	1.513 7471	84
85	1.609 7148	1.576 7890	1.545 2602	1.515 0712	85
86	1.611 6534	1.578 4837	1.546 7377	1.516 3560	86
87	1.613 5456	1.580 1347	1.548 1744	1.517 6027	87
88	1.615 3928	1.581 7434	1.549 5715	1.518 8128	88
89	1.617 1961	1.583 3110	1.550 9301	1.519 9871	89
90	1.618 9568	1.584 8386	1.552 2515	1.521 1269	90
91	1.620 6761	1.586 3275	1.553 5369	1.522 2335	91
92	1.622 3551	1.587 7785	1.554 7873	1.523 3077	92
93	1.623 9950	1.589 1931	1.556 0037	1.524 3507	93
94	1.625 5965	1.590 5720	1.557 1871	1.525 3632	94
95	1.627 1612	1.591 9164	1.558 3385	1.526 3465	95
96	1.628 6895	1.593 2272	1.559 4590	1.527 3012	96
97	1.630 1828	1.594 5053	1.560 5493	1.528 2284	97
98	1.631 6419	1.595 7517	1.561 6104	1.529 1290	98
99	1.633 0675	1.596 9672	1.562 6433	1.530 0036	99
100	1.634 4606	1.598 1527	1.563 6484	1.530 8531	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	3%	3½%	4%	4½%	n
1	0.9708 7379	0.9661 8357	0.9615 3846	0.9569 3780	1
2	1.9134 6970	1.8996 9428	1.8860 9467	1.8726 6775	2
3	2.8286 1135	2.8016 3698	2.7750 9103	2.7489 6435	3
4	3.7170 9840	3.6730 7921	3.6298 9522	3.5875 2570	4
5	4.5797 0719	4.5150 5238	4.4518 2233	4.3899 7674	5
6	5.4171 9144	5.3285 5302	5.2421 3686	5.1578 7248	6
7	6.2302 8296	6.1145 4398	6.0020 5467	5.8927 0094	7
8	7.0196 9219	6.8739 5554	6.7327 4487	6.5958 8607	8
9	7.7861 0892	7.6076 8651	7.4353 3161	7.2687 9050	9
10	8.5302 0284	8.3166 0532	8.1108 9578	7.9127 1818	10
11	9.2526 2411	9.0015 5104	8.7604 7671	8.5289 1692	11
12	9.9540 0399	9.6633 3433	9.3850 7376	9.1185 8078	12
13	10.6349 5533	10.3027 3849	9.9856 4785	9.6828 5242	13
14	11.2960 7314	10.9205 2028	10.5631 2293	10.2228 2528	14
15	11.9379 3509	11.5174 1090	11.1183 8743	10.7395 4573	15
16	12.5611 0203	12.0941 1681	11.6522 9561	11.2340 1505	16
17	13.1661 1847	12.6513 2059	12.1656 6885	11.7071 9143	17
18	13.7535 1308	13.1896 8173	12.6592 9697	12.1599 9180	18
19	14.3237 9911	13.7098 3742	13.1339 3940	12.5932 9359	19
20	14.8774 7486	14.2124 0330	13.5903 2634	13.0079 3645	20
21	15.4150 2414	14.6979 7420	14.0291 5995	13.4047 2388	21
22	15.9369 1664	15.1671 2484	14.4511 1533	13.7844 2476	22
23	16.4436 0839	15.6204 1047	14.8568 4167	14.1477 7489	23
24	16.9355 4212	16.0583 6760	15.2469 6314	14.4954 7837	24
25	17.4131 4769	16.4815 1459	15.6220 7994	14.8282 0896	25
26	17.8768 4242	16.8903 5226	15.9827 6918	15.1466 1145	26
27	18.3270 3147	17.2853 6451	16.3295 8575	15.4513 0282	27
28	18.7641 0823	17.6670 1885	16.6630 6322	15.7428 7351	28
29	19.1884 5459	18.0357 6700	16.9837 1463	16.0218 8853	29
30	19.6004 4135	18.3920 4541	17.2920 3330	16.2888 8854	30
31	20.0004 2849	18.7362 7576	17.5884 9356	16.5443 9095	31
32	20.3887 6553	19.0688 6547	17.8735 5150	16.7888 9086	32
33	20.7657 9178	19.3902 0818	18.1476 4567	17.0228 6207	33
34	21.1318 3668	19.7006 8423	18.4111 9776	17.2467 5796	34
35	21.4872 2007	20.0006 6110	18.6646 1323	17.4610 1240	35
36	21.8322 5250	20.2904 9381	18.9082 8195	17.6660 4058	36
37	22.1672 3544	20.5705 2542	19.1425 7880	17.8622 3979	37
38	22.4924 6159	20.8410 8736	19.3678 6423	18.0499 9023	38
39	22.8082 1513	21.1024 9987	19.5844 8484	18.2296 5572	39
40	23.1147 7197	21.3550 7234	19.7927 7388	18.4015 8442	40
41	23.4123 9997	21.5991 0371	19.9930 5181	18.5661 0949	41
42	23.7013 5920	21.8348 8281	20.1856 2674	18.7235 4975	42
43	23.9819 0213	22.0626 8870	20.3707 9494	18.8742 1029	43
44	24.2542 7392	22.2827 9102	20.5488 4129	19.0183 8305	44
45	24.5187 1254	22.4954 5026	20.7200 3970	19.1563 4742	45
46	24.7754 4907	22.7009 1813	20.8846 5356	19.2883 7074	46
47	25.0247 0783	22.8994 3780	21.0429 3612	19.4147 0884	47
48	25.2667 0664	23.0912 4425	21.1951 3088	19.5356 0654	48
49	25.5016 5693	23.2765 6450	21.3414 7200	19.6512 9813	49
50	25.7297 6401	23.4556 1787	21.4821 8462	19.7620 0778	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$log\ a_{\overline{n}|}$

n	3%	3½%	4%	4½%	n
1	9.987 1628	9.985 0596	9.982 9667	9.980 8837	1
2	0.281 8216	0.278 6837	0.275 5635	0.272 4607	2
3	0.451 5733	0.447 4118	0.443 2772	0.439 1691	3
4	0.570 2040	0.565 0303	0.559 8941	0.554 7950	4
5	0.660 8377	0.654 6628	0.648 5378	0.642 4622	5
6	0.733 7742	0.726 6093	0.719 5084	0.712 4706	6
7	0.794 5078	0.786 3640	0.778 2999	0.770 3144	7
8	0.846 3181	0.837 2067	0.828 1922	0.819 2732	8
9	0.891 3205	0.881 2526	0.871 3003	0.861 4621	9
10	0.930 9593	0.919 9461	0.909 0688	0.898 3257	10
11	0.966 2649	0.954 3173	0.942 5277	0.930 8939	11
12	0.997 9978	0.985 1270	0.972 4377	0.959 9273	12
13	1.026 7357	1.012 9527	0.999 3763	0.986 0033	13
14	1.052 9275	1.038 2433	1.023 7924	1.009 5710	14
15	1.076 9292	1.061 3549	1.046 0418	1.030 9859	15
16	1.099 0277	1.082 5742	1.066 4115	1.050 5350	16
17	1.119 4578	1.102 1359	1.085 1360	1.068 4527	17
18	1.138 4136	1.120 2343	1.102 4096	1.084 9332	18
19	1.156 0582	1.137 0323	1.118 3950	1.100 1393	19
20	1.172 5293	1.152 6675	1.133 2299	1.114 2084	20
21	1.187 9442	1.167 2574	1.147 0317	1.127 2579	21
22	1.202 4043	1.180 9033	1.159 9014	1.139 3887	22
23	1.215 9972	1.193 6924	1.171 9265	1.150 6882	23
24	1.228 7991	1.205 7014	1.183 1833	1.161 2325	24
25	1.240 8773	1.216 9971	1.193 7388	1.171 0887	25
26	1.252 2908	1.227 6387	1.203 6520	1.180 3155	26
27	1.263 0921	1.237 6786	1.212 9752	1.188 9651	27
28	1.273 3279	1.247 1633	1.221 7548	1.197 0840	28
29	1.283 0400	1.256 1346	1.230 0327	1.204 7137	29
30	1.292 2658	1.264 6301	1.237 8460	1.211 8914	30
31	1.301 0393	1.272 6833	1.245 2287	1.218 6508	31
32	1.309 3909	1.280 3248	1.252 2109	1.225 0220	32
33	1.317 3485	1.287 5825	1.258 8203	1.231 0326	33
34	1.324 9373	1.294 4813	1.265 0821	1.236 7075	34
35	1.332 1802	1.301 0443	1.271 0190	1.242 0694	35
36	1.339 0985	1.307 2926	1.276 6521	1.247 1392	36
37	1.345 7115	1.313 2454	1.282 0004	1.251 9359	37
38	1.352 0370	1.318 9204	1.287 0818	1.256 4770	38
39	1.358 0913	1.324 3339	1.291 9122	1.260 7785	39
40	1.363 8896	1.329 5011	1.296 5067	1.264 8552	40
41	1.369 4459	1.334 4357	1.300 8791	1.268 7209	41
42	1.374 7733	1.339 1509	1.305 0423	1.272 3882	42
43	1.379 8836	1.343 6585	1.309 0079	1.275 8688	43
44	1.384 7883	1.347 9696	1.312 7873	1.279 1736	44
45	1.389 4977	1.352 0947	1.316 3906	1.282 3127	45
46	1.394 0216	1.356 0434	1.319 8273	1.285 2955	46
47	1.398 3690	1.359 8248	1.323 1064	1.288 1309	47
48	1.402 5487	1.363 4473	1.326 2361	1.290 8269	48
49	1.406 5684	1.366 9190	1.329 2244	1.293 3913	49
50	1.410 4358	1.370 2469	1.332 0784	1.295 8311	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	3%	3½%	4%	4½%	n
51	25.9512 2719	23.6286 1630	21.6174 8521	19.8679 5003	51
52	26.1662 3999	23.7957 6454	21.7475 8193	19.9693 3017	52
53	26.3749 9028	23.9572 6043	21.8726 7493	20.0663 4466	53
54	26.5776 6047	24.1132 9510	21.9929 5667	20.1591 8149	54
55	26.7744 2764	24.2640 5323	22.1086 1218	20.2480 2057	55
56	26.9654 6373	24.4097 1327	22.2189 1940	20.3330 3404	56
57	27.1509 3566	24.5504 4760	22.3267 4943	20.4143 8664	57
58	27.3310 0549	24.6864 2281	22.4295 6676	20.4922 3602	58
59	27.5058 3058	24.8177 9981	22.5284 2957	20.5667 3303	59
60	27.6755 6367	24.9447 3412	22.6234 8997	20.6380 2204	60
61	27.8403 5307	25.0673 7596	22.7148 9421	20.7062 4118	61
62	28.0003 4279	25.1858 7049	22.8027 8289	20.7715 2266	62
63	28.1556 7261	25.3003 5796	22.8872 9124	20.8339 9298	63
64	28.3064 7826	25.4109 7388	22.9685 4927	20.8937 7319	64
65	28.4528 9152	25.5178 4916	23.0466 8199	20.9509 7913	65
66	28.5950 4031	25.6211 1030	23.1218 0961	21.0057 2165	66
67	28.7330 4884	25.7208 7951	23.1940 4770	21.0581 0684	67
68	28.8670 3771	25.8172 7489	23.2635 0740	21.1082 3621	68
69	28.9971 2399	25.9104 1052	23.3302 9558	21.1562 0690	69
70	29.1234 2135	26.0003 9664	23.3945 1498	21.2021 1187	70
71	29.2460 4015	26.0873 3975	23.4562 6440	21.2460 4007	71
72	29.3650 8752	26.1713 4275	23.5156 3885	21.2880 7662	72
73	29.4806 6750	26.2525 0508	23.5727 2966	21.3283 0298	73
74	29.5928 8106	26.3309 2278	23.6276 2468	21.3667 9711	74
75	29.7018 2628	26.4066 8868	23.6804 0834	21.4036 3360	75
76	29.8075 9833	26.4798 9244	23.7311 6187	21.4388 8383	76
77	29.9102 8964	26.5506 2072	23.7799 6333	21.4726 1611	77
78	30.0099 8994	26.6189 5721	23.8268 8782	21.5048 9579	78
79	30.1067 8635	26.6849 8281	23.8720 0752	21.5357 8545	79
80	30.2007 6345	26.7487 7567	23.9153 9185	21.5653 4493	80
81	30.2920 0335	26.8104 1127	23.9571 0754	21.5936 3151	81
82	30.3805 8577	26.8699 6258	23.9972 1879	21.6207 0001	82
83	30.4665 8813	26.9275 0008	24.0357 8730	21.6466 0288	83
84	30.5500 8556	26.9830 9186	24.0728 7240	21.6713 9032	84
85	30.6311 5103	27.0368 0373	24.1085 3116	21.6951 1035	85
86	30.7098 5537	27.0886 9926	24.1428 1842	21.7178 0895	86
87	30.7862 6735	27.1388 3986	24.1757 8694	21.7395 3009	87
88	30.8604 5374	27.1872 8489	24.2074 8745	21.7603 1588	88
89	30.9324 7936	27.2340 9168	24.2379 6870	21.7802 0658	89
90	31.0024 0714	27.2793 1564	24.2672 7759	21.7992 4075	90
91	31.0702 9820	27.3230 1028	24.2954 5923	21.8174 5526	91
92	31.1362 1184	27.3652 2732	24.3225 5695	21.8348 8542	92
93	31.2002 0567	27.4060 1673	24.3486 1245	21.8515 6499	93
94	31.2623 3560	27.4454 2680	24.3736 6582	21.8675 2631	94
95	31.3226 5592	27.4835 0415	24.3977 5559	21.8828 0030	95
96	31.3812 1934	27.5202 9387	24.4209 1884	21.8974 1655	96
97	31.4380 7703	27.5558 3948	24.4431 9119	21.9114 0340	97
98	31.4932 7867	27.5901 8308	24.4646 0692	21.9247 8794	98
99	31.5468 7250	27.6233 6529	24.4851 9896	21.9375 9612	99
100	31.5989 0534	27.6554 2540	24.5049 9900	21.9498 5274	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$log\ a_{\overline{n}|}$

n	3%	3½%	4%	4½%	n
51	1.414 1579	1.373 4383	1.334 8052	1.298 1531	51
52	1.417 7413	1.376 4996	1.337 4109	1.300 3634	52
53	1.421 1923	1.379 4371	1.339 9018	1.302 4681	53
54	1.424 5167	1.382 2566	1.342 2837	1.304 4728	54
55	1.427 7202	1.384 9634	1.344 5614	1.306 3825	55
56	1.430 8078	1.387 5626	1.346 7405	1.308 2021	56
57	1.433 7848	1.390 0594	1.348 8255	1.309 9363	57
58	1.436 6556	1.392 4580	1.350 8209	1.311 5893	58
59	1.439 4247	1.394 7633	1.352 7309	1.313 1652	59
60	1.442 0963	1.396 9788	1.354 5596	1.314 6681	60
61	1.444 6746	1.399 1089	1.356 3107	1.316 1012	61
62	1.447 1633	1.401 1569	1.357 9877	1.317 4682	62
63	1.449 5658	1.403 1266	1.359 5943	1.318 7724	63
64	1.451 8858	1.405 0212	1.361 1335	1.320 0168	64
65	1.454 1264	1.406 8440	1.362 6083	1.321 2043	65
66	1.456 2907	1.408 5979	1.364 0218	1.322 3376	66
67	1.458 3817	1.410 2858	1.365 3766	1.323 4193	67
68	1.460 4023	1.411 9103	1.366 6752	1.324 4520	68
69	1.462 3549	1.413 4742	1.367 9203	1.325 4379	69
70	1.464 2424	1.414 9800	1.369 1139	1.326 3791	70
71	1.466 0670	1.416 4297	1.370 2588	1.327 2780	71
72	1.467 8313	1.417 8259	1.371 3568	1.328 1365	72
73	1.469 5373	1.419 1708	1.372 4099	1.328 9562	73
74	1.471 1873	1.420 4660	1.373 4200	1.329 7395	74
75	1.472 7832	1.421 7139	1.374 3892	1.330 4874	75
76	1.474 3270	1.422 9161	1.375 3189	1.331 2020	76
77	1.475 8206	1.424 0746	1.376 2111	1.331 8850	77
78	1.477 2658	1.425 1910	1.377 0673	1.332 5373	78
79	1.478 6644	1.426 2668	1.377 8889	1.333 1607	79
80	1.480 0178	1.427 3040	1.378 6774	1.333 7563	80
81	1.481 3279	1.428 3034	1.379 4344	1.334 3256	81
82	1.482 5962	1.429 2670	1.380 1609	1.334 8697	82
83	1.483 8238	1.430 1960	1.380 8583	1.335 3897	83
84	1.485 0124	1.431 0916	1.381 5278	1.335 8868	84
85	1.486 1633	1.431 9552	1.382 1707	1.336 3619	85
86	1.487 2778	1.432 7881	1.382 7879	1.336 8160	86
87	1.488 3571	1.433 5912	1.383 3806	1.337 2501	87
88	1.489 4022	1.434 3657	1.383 9497	1.337 6652	88
89	1.490 4147	1.435 1128	1.384 4962	1.338 0620	89
90	1.491 3954	1.435 8335	1.385 0211	1.338 4413	90
91	1.492 3454	1.436 5285	1.385 5251	1.338 8041	91
92	1.493 2657	1.437 1991	1.386 0092	1.339 1510	92
93	1.494 1575	1.437 8460	1.386 4741	1.339 4824	93
94	1.495 0215	1.438 4700	1.386 9209	1.339 7997	94
95	1.495 8586	1.439 0720	1.387 3499	1.340 1029	95
96	1.496 6698	1.439 6529	1.387 7619	1.340 3929	96
97	1.497 4560	1.440 2136	1.388 1578	1.340 6702	97
98	1.498 2178	1.440 7545	1.388 5382	1.340 9354	98
99	1.498 9563	1.441 2766	1.388 9036	1.341 1890	99
100	1.499 6720	1.441 7804	1.389 2547	1.341 4316	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	5%	5½%	6%	6½%	n
1	0.9523 8095	0.9478 6730	0.9433 9623	0.9389 6714	1
2	1.8594 1043	1.8463 1971	1.8333 9267	1.8206 2642	2
3	2.7232 4803	2.6979 3338	2.6730 1195	2.6484 7551	3
4	3.5459 5050	3.5051 5012	3.4651 0561	3.4257 9860	4
5	4.3294 7667	4.2702 8448	4.2123 6379	4.1556 7944	5
6	5.0756 9206	4.9955 3031	4.9173 2433	4.8410 1356	6
7	5.7863 7340	5.6829 6712	5.5823 8144	5.4845 1977	7
8	6.4632 1276	6.3345 6599	6.2097 9381	6.0887 5096	8
9	7.1078 2168	6.9521 9525	6.8016 9227	6.6561 0419	9
10	7.7217 3493	7.5376 2583	7.3600 8705	7.1888 3022	10
11	8.3064 1422	8.0925 3633	7.8868 7458	7.6890 4246	11
12	8.8632 5164	8.6185 1785	8.3838 4394	8.1587 2532	12
13	9.3935 7299	9.1170 7853	8.8526 8296	8.5997 4208	13
14	9.8986 4094	9.5896 4790	9.2949 8393	9.0138 4233	14
15	10.3796 5804	10.0375 8094	9.7122 4899	9.4026 6885	15
16	10.8377 6956	10.4621 6203	10.1058 9527	9.7677 6418	16
17	11.2740 6625	10.8646 0856	10.4772 5969	10.1105 7670	17
18	11.6895 8690	11.2460 7447	10.8276 0348	10.4324 6638	18
19	12.0853 2086	11.6076 5352	11.1581 1649	10.7347 1022	19
20	12.4622 1034	11.9503 8249	11.4699 2122	11.0185 0725	20
21	12.8211 5271	12.2752 4406	11.7640 7662	11.2849 8333	21
22	13.1630 0258	12.5831 6973	12.0415 8172	11.5351 9562	22
23	13.4885 7388	12.8750 4240	12.3033 7898	11.7701 3673	23
24	13.7986 4179	13.1516 9895	12.5503 5753	11.9907 3871	24
25	14.0939 4457	13.4139 3266	12.7833 5616	12.1978 7672	25
26	14.3751 8530	13.6624 9541	13.0031 6619	12.3923 7251	26
27	14.6430 3362	13.8980 9991	13.2105 3414	12.5749 9766	27
28	14.8981 2726	14.1214 2172	13.4061 6428	12.7464 7668	28
29	15.1410 7358	14.3331 0116	13.5907 2102	12.9074 8984	29
30	15.3724 5103	14.5337 4517	13.7648 3115	13.0586 7591	30
31	15.5928 1050	14.7239 2907	13.9290 8599	13.2006 3465	31
32	15.8026 7667	14.9041 9817	14.0840 4339	13.3339 2925	32
33	16.0025 4921	15.0750 6936	14.2302 2961	13.4590 8850	33
34	16.1929 0401	15.2370 3257	14.3681 4114	13.5766 0892	34
35	16.3741 9429	15.3905 5220	14.4982 4636	13.6869 5673	35
36	16.5468 5171	15.5360 6843	14.6209 8713	13.7905 6970	36
37	16.7112 8734	15.6739 9851	14.7367 8031	13.8878 5887	37
38	16.8678 9271	15.8047 3793	14.8460 1916	13.9792 1021	38
39	17.0170 4067	15.9286 6154	14.9490 7468	14.0649 8611	39
40	17.1590 8635	16.0461 2469	15.0462 9687	14.1455 2687	40
41	17.2943 6796	16.1574 6416	15.1380 1592	14.2211 5199	41
42	17.4232 0758	16.2629 9920	15.2245 4332	14.2921 6149	42
43	17.5459 1198	16.3630 3242	15.3061 7294	14.3588 3708	43
44	17.6627 7331	16.4578 5063	15.3831 8202	14.4214 4327	44
45	17.7740 6982	16.5477 2572	15.4558 3209	14.4802 2842	45
46	17.8800 6650	16.6329 1537	15.5243 6990	14.5354 2575	46
47	17.9810 1571	16.7136 6386	15.5890 2821	14.5872 5422	47
48	18.0771 5782	16.7902 0271	15.6500 2661	14.6359 1946	48
49	18.1687 2173	16.8627 5139	15.7075 7227	14.6816 1451	49
50	18.2559 2546	16.9315 1790	15.7618 6064	14.7245 2067	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	5%	5½%	6%	6½%	n
1	9.978 8108	9.976 7476	9.974 6942	9.972 6504	1
2	0.269 3752	0.266 3070	0.263 2555	0.260 2208	2
3	0.435 0872	0.431 0312	0.427 0009	0.422 9960	3
4	0.549 7327	0.544 7066	0.539 7165	0.534 7618	4
5	0.636 4354	0.630 4568	0.624 5259	0.618 6420	5
6	0.705 4952	0.698 5816	0.691 7288	0.684 9363	6
7	0.762 4065	0.754 5752	0.746 8195	0.739 1386	7
8	0.810 4485	0.801 7169	0.793 0772	0.784 5282	8
9	0.851 7365	0.842 1220	0.832 6170	0.823 2201	9
10	0.887 7149	0.877 2346	0.866 8829	0.856 6582	10
11	0.919 4136	0.908 0847	0.896 9049	0.885 8723	11
12	0.947 5930	0.935 4326	0.923 4432	0.911 6223	12
13	0.972 8308	0.959 8557	0.947 0749	0.934 4854	13
14	0.995 5756	0.981 8027	0.968 2486	0.954 9099	14
15	1.016 1831	1.001 6291	0.987 3198	0.973 2512	15
16	1.034 9399	1.019 6214	1.004 5748	0.989 7952	16
17	1.052 0806	1.036 0142	1.020 2477	1.004 7759	17
18	1.067 7992	1.051 0010	1.034 5323	1.018 3870	18
19	1.082 2582	1.064 7445	1.047 5910	1.030 7903	19
20	1.095 5950	1.077 3818	1.059 5604	1.042 1228	20
21	1.107 9271	1.089 0301	1.070 5578	1.052 5010	21
22	1.119 3550	1.099 7901	1.080 6836	1.062 0250	22
23	1.129 9661	1.109 7486	1.090 0244	1.070 7815	23
24	1.139 8363	1.118 9819	1.098 6561	1.078 8459	24
25	1.149 0326	1.127 5561	1.106 6449	1.086 2842	25
26	1.157 6135	1.135 5300	1.114 0492	1.093 1544	26
27	1.165 6311	1.142 9554	1.120 9203	1.099 5079	27
28	1.173 1317	1.149 8785	1.127 3045	1.105 3902	28
29	1.180 1567	1.156 3402	1.133 2425	1.110 8418	29
30	1.186 7431	1.162 3776	1.138 7709	1.115 8991	30
31	1.192 9244	1.168 0237	1.143 9226	1.120 5948	31
32	1.198 7306	1.173 3086	1.148 7273	1.124 9582	32
33	1.204 1892	1.178 2593	1.153 2119	1.129 0157	33
34	1.209 3247	1.182 9005	1.157 4007	1.132 7913	34
35	1.214 1599	1.187 2542	1.161 3155	1.136 3069	35
36	1.218 7154	1.191 3411	1.164 9767	1.139 5822	36
37	1.223 0099	1.195 1798	1.168 4026	1.142 6353	37
38	1.227 0609	1.198 7873	1.171 6101	1.145 4826	38
39	1.230 8840	1.202 1793	1.174 6143	1.148 1393	39
40	1.234 4942	1.205 3702	1.177 4297	1.150 6192	40
41	1.237 9047	1.208 3732	1.180 0690	1.152 9348	41
42	1.241 1281	1.211 2007	1.182 5443	1.155 0979	42
43	1.244 1759	1.213 8638	1.184 8666	1.157 1193	43
44	1.247 0589	1.216 3732	1.187 0462	1.159 0087	44
45	1.249 7869	1.218 7383	1.189 0924	1.160 7755	45
46	1.252 3691	1.220 9684	1.191 0140	1.162 4277	46
47	1.254 8142	1.223 0717	1.192 8191	1.163 9736	47
48	1.257 1302	1.225 0560	1.194 5150	1.165 4200	48
49	1.259 3244	1.226 9284	1.196 1090	1.166 7738	49
50	1.261 4037	1.228 6959	1.197 6075	1.168 0412	50

Present Value of 1 Per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	5%	5½%	6%	6½%	n
51	18.3389 7663	16.9966 9943	15.8130 7607	14.7648 0814	51
52	18.4180 7298	17.0584 8287	15.8613 9252	14.8026 3675	52
53	18.4934 0284	17.1170 4538	15.9069 7408	14.8381 5658	53
54	18.5651 4556	17.1725 5486	15.9499 7554	14.8715 0852	54
55	18.6334 7196	17.2251 7048	15.9905 4297	14.9028 2490	55
56	18.6985 4473	17.2750 4311	16.0288 1412	14.9322 2996	56
57	18.7605 1879	17.3223 1575	16.0649 1898	14.9598 4033	57
58	18.8195 4170	17.3671 2393	16.0989 8017	14.9857 6557	58
59	18.8757 5400	17.4095 9614	16.1311 1337	15.0101 0852	59
60	18.9292 8952	17.4498 5416	16.1614 2771	15.0329 6574	60
61	18.9802 7574	17.4880 1343	16.1900 2614	15.0544 2793	61
62	19.0288 3404	17.5241 8334	16.2170 0579	15.0745 8021	62
63	19.0750 8003	17.5584 6762	16.2424 5829	15.0935 0255	63
64	19.1191 2384	17.5909 6457	16.2664 7009	15.1112 7000	64
65	19.1610 7033	17.6217 6737	16.2891 2272	15.1279 5305	65
66	19.2010 1936	17.6509 6433	16.3104 9314	15.1436 1789	66
67	19.2390 6606	17.6786 3917	16.3306 5390	15.1583 2666	67
68	19.2753 0101	17.7048 7125	16.3496 7349	15.1721 3770	68
69	19.3098 1048	17.7297 3579	16.3676 1650	15.1851 0583	69
70	19.3426 7665	17.7533 0406	16.3845 4387	15.1972 8247	70
71	19.3739 7776	17.7756 4366	16.4005 1308	15.2087 1593	71
72	19.4037 8834	17.7968 1864	16.4155 7838	15.2194 5158	72
73	19.4321 7937	17.8168 8970	16.4297 9093	15.2295 3200	73
74	19.4592 1845	17.8359 1441	16.4431 9899	15.2389 9718	74
75	19.4849 6995	17.8539 4731	16.4558 4810	15.2478 8468	75
76	19.5094 9519	17.8710 4010	16.4677 8123	15.2562 2974	76
77	19.5328 5257	17.8872 4180	16.4790 3889	15.2640 6549	77
78	19.5550 9768	17.9025 9887	16.4896 5933	15.2714 2299	78
79	19.5762 8351	17.9171 5532	16.4996 7862	15.2783 3145	79
80	19.5964 6048	17.9309 5291	16.5091 3077	15.2848 1826	80
81	19.6156 7665	17.9440 3120	16.5180 4790	15.2909 0917	81
82	19.6339 7776	17.9564 2768	16.5264 6028	15.2966 2832	82
83	19.6514 0739	17.9681 7789	16.5343 9649	15.3019 9843	83
84	19.6680 0704	17.9793 1554	16.5418 8348	15.3070 4078	84
85	19.6838 1623	17.9898 7255	16.5489 4668	15.3117 7538	85
86	19.6988 7260	17.9998 7919	16.5556 1008	15.3162 2101	86
87	19.7132 1200	18.0093 6416	16.5618 9630	15.3203 9531	87
88	19.7268 6857	18.0183 5466	16.5678 2670	15.3243 1485	88
89	19.7398 7483	18.0268 7645	16.5734 2141	15.3279 9516	89
90	19.7522 6174	18.0349 5398	16.5786 9944	15.3314 5086	90
91	19.7640 5880	18.0426 1041	16.5836 7872	15.3346 9564	91
92	19.7752 9410	18.0498 6769	16.5883 7615	15.3377 4239	92
93	19.7859 9438	18.0567 4662	16.5928 0769	15.3406 0318	93
94	19.7961 8512	18.0632 6694	16.5969 8839	15.3432 8937	94
95	19.8058 9059	18.0694 4734	16.6009 3244	15.3458 1161	95
96	19.8151 3390	18.0753 0553	16.6046 5325	15.3481 7992	96
97	19.8239 3705	18.0808 5833	16.6081 6344	15.3504 0368	97
98	19.8323 2100	18.0861 2164	16.6114 7494	15.3524 9172	98
99	19.8403 0571	18.0911 1055	16.6145 9900	15.3544 5232	99
100	19.8479 1020	18.0958 3939	16.6175 4623	15.3562 9326	100

$log\ a_{\overline{n}|}$

n	5%	5½%	6%	6½%	n
51	1.263 3751	1.230 3646	1.199 0164	1.169 2278	51
52	1.265 2441	1.231 9403	1.200 3412	1.170 3391	52
53	1.267 0168	1.233 4289	1.201 5874	1.171 3800	53
54	1.268 6984	1.234 8348	1.202 7601	1.172 3550	54
55	1.270 2937	1.236 1634	1.203 8631	1.173 2686	55
56	1.271 8077	1.237 4191	1.204 9012	1.174 1247	56
57	1.273 2448	1.238 6060	1.205 8785	1.174 9270	57
58	1.274 6089	1.239 7278	1.206 7983	1.175 6789	58
59	1.275 9042	1.240 7888	1.207 6642	1.176 3838	59
60	1.277 1343	1.241 7918	1.208 4797	1.177 0447	60
61	1.278 3026	1.242 7404	1.209 2476	1.177 6643	61
62	1.279 4121	1.243 6376	1.209 9707	1.178 2452	62
63	1.280 4663	1.244 4866	1.210 6517	1.178 7900	63
64	1.281 4679	1.245 2896	1.211 2933	1.179 3009	64
65	1.282 4197	1.246 0495	1.211 8976	1.179 7801	65
66	1.283 3242	1.246 7683	1.212 4670	1.180 2296	66
67	1.284 1840	1.247 4488	1.213 0036	1.180 6513	67
68	1.285 0011	1.248 0927	1.213 5090	1.181 0468	68
69	1.285 7780	1.248 7023	1.213 9855	1.181 4178	69
70	1.286 5166	1.249 2791	1.214 4342	1.181 7660	70
71	1.287 2188	1.249 8252	1.214 8573	1.182 0926	71
72	1.287 8865	1.250 3424	1.215 2562	1.182 3990	72
73	1.288 5215	1.250 8319	1.215 6320	1.182 6866	73
74	1.289 1254	1.251 2953	1.215 9863	1.182 9564	74
75	1.289 6997	1.251 7342	1.216 3203	1.183 2096	75
76	1.290 2461	1.252 1498	1.216 6350	1.183 4472	76
77	1.290 7656	1.252 5433	1.216 9319	1.183 6703	77
78	1.291 2600	1.252 9161	1.217 2117	1.183 8795	78
79	1.291 7301	1.253 2691	1.217 4754	1.184 0759	79
80	1.292 1776	1.253 6032	1.217 7242	1.184 2602	80
81	1.292 6033	1.253 9200	1.217 9588	1.184 4333	81
82	1.293 0083	1.254 2200	1.218 1797	1.184 5957	82
83	1.293 3937	1.254 5040	1.218 3884	1.184 7482	83
84	1.293 7604	1.254 7732	1.218 5848	1.184 8913	84
85	1.294 1094	1.255 0280	1.218 7704	1.185 0255	85
86	1.294 4413	1.255 2696	1.218 9451	1.185 1517	86
87	1.294 7573	1.255 4984	1.219 1101	1.185 2700	87
88	1.295 0581	1.255 7152	1.219 2656	1.185 3810	88
89	1.295 3444	1.255 9206	1.219 4121	1.185 4854	89
90	1.295 6168	1.256 1149	1.219 5504	1.185 5833	90
91	1.295 8761	1.256 2993	1.219 6809	1.185 6752	91
92	1.296 1228	1.256 4740	1.219 8039	1.185 7614	92
93	1.296 3579	1.256 6395	1.219 9199	1.185 8425	93
94	1.296 5815	1.256 7963	1.220 0293	1.185 9185	94
95	1.296 7943	1.256 9449	1.220 1323	1.185 9899	95
96	1.296 9969	1.257 0857	1.220 2297	1.186 0569	96
97	1.297 1899	1.257 2190	1.220 3216	1.186 1198	97
98	1.297 3735	1.257 3454	1.220 4082	1.186 1789	98
99	1.297 5484	1.257 4652	1.220 4898	1.186 2343	99
100	1.297 7148	1.257 5787	1.220 5670	1.186 2864	100

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	7%	7½%	8%	8½%	n
1	0.9345 7944	0.9302 3256	0.9259 2593	0.9216 5899	1
2	1.8080 1817	1.7955 6517	1.7832 6475	1.7711 1427	2
3	2.6243 1604	2.6005 2574	2.5770 9699	2.5540 2237	3
4	3.3872 1126	3.3493 2627	3.3121 2684	3.2755 9666	4
5	4.1001 9744	4.0458 8490	3.9927 1004	3.9406 4208	5
6	4.7665 3966	4.6938 4642	4.6228 7966	4.5535 8717	6
7	5.3892 8940	5.2966 0132	5.2063 7006	5.1185 1352	7
8	5.9712 9851	5.8573 0355	5.7466 3894	5.6391 8297	8
9	6.5152 3225	6.3788 8703	6.2468 8791	6.1190 6264	9
10	7.0235 8154	6.8640 8096	6.7100 8140	6.5613 4806	10
11	7.4986 7434	7.3154 2415	7.1389 6426	6.9689 8439	11
12	7.9426 8630	7.7352 7827	7.5360 7802	7.3446 8607	12
13	8.3576 5074	8.1258 4026	7.9037 7594	7.6909 5490	13
14	8.7454 6799	8.4891 5373	8.2442 3698	8.0100 9668	14
15	9.1079 1401	8.8271 1974	8.5594 7869	8.3042 3658	15
16	9.4466 4860	9.1415 0674	8.8513 6916	8.5753 3325	16
17	9.7632 2299	9.4339 5976	9.1216 3811	8.8251 9194	17
18	10.0590 8691	9.7060 0908	9.3718 8714	9.0554 7644	18
19	10.3355 9524	9.9590 7821	9.6035 9920	9.2677 2022	19
20	10.5940 1425	10.1944 9136	9.8181 4741	9.4633 3661	20
21	10.8355 2733	10.4134 8033	10.0168 0316	9.6436 2821	21
22	11.0612 4050	10.6171 9101	10.2007 4366	9.8097 9559	22
23	11.2721 8738	10.8066 8931	10.3710 5895	9.9629 4524	23
24	11.4693 3400	10.9829 6680	10.5287 5828	10.1040 9700	24
25	11.6535 8318	11.1469 4586	10.6747 7619	10.2341 9078	25
26	11.8257 7867	11.2994 8452	10.8099 7795	10.3540 9288	26
27	11.9867 0904	11.4413 8095	10.9351 6477	10.4646 0174	27
28	12.1371 1125	11.5733 7763	11.0510 7849	10.5664 5321	28
29	12.2776 7407	11.6961 6524	11.1584 0601	10.6603 2554	29
30	12.4090 4118	11.8103 8627	11.2577 8334	10.7468 4382	30
31	12.5318 1419	11.9166 3839	11.3497 9939	10.8265 8416	31
32	12.6465 5532	12.0154 7757	11.4349 9944	10.9000 7757	32
33	12.7537 9002	12.1074 2099	11.5138 8837	10.9678 1343	33
34	12.8540 0936	12.1929 4976	11.5869 3367	11.0302 4279	34
35	12.9476 7230	12.2725 1141	11.6545 6822	11.0877 8137	35
36	13.0352 0776	12.3465 2224	11.7171 9279	11.1408 1233	36
37	13.1170 1660	12.4153 6953	11.7751 7851	11.1896 8878	37
38	13.1934 7345	12.4794 1351	11.8288 6899	11.2347 3620	38
39	13.2649 2846	12.5389 8931	11.8785 8240	11.2762 5457	39
40	13.3317 0884	12.5944 0866	11.9246 1333	11.3145 2034	40
41	13.3941 2041	12.6459 6155	11.9672 3457	11.3497 8833	41
42	13.4524 4898	12.6939 1772	12.0066 9867	11.3822 9339	42
43	13.5069 6167	12.7385 2811	12.0432 3951	11.4122 5197	43
44	13.5579 0810	12.7800 2615	12.0770 7362	11.4398 6357	44
45	13.6055 2159	12.8186 2898	12.1084 0150	11.4653 1205	45
46	13.6500 2018	12.8545 3858	12.1374 0880	11.4887 6686	46
47	13.6916 0764	12.8879 4287	12.1642 6741	11.5103 8420	47
48	13.7304 7443	12.9190 1662	12.1891 3649	11.5303 0802	48
49	13.7667 9853	12.9479 2244	12.2121 6341	11.5486 7099	49
50	13.8007 4629	12.9748 1157	12.2334 8464	11.5655 9538	50

Logarithm of Present Value of 1 per Annum at Compound Interest

$log\ a_{\overline{n}|}$

n	7%	7½%	8%	8½%	n
1	9.970 6162	9.968 5915	9.966 5763	9.964 5702	1
2	0.257 2028	0.254 2012	0.251 2158	0.248 2466	2
3	0.419 0161	0.415 0612	0.411 1308	0.407 2247	3
4	0.529 8423	0.524 9574	0.520 1069	0.515 2905	4
5	0.612 8047	0.607 0135	0.601 2678	0.595 5670	5
6	0.678 2032	0.671 5289	0.664 9126	0.658 3537	6
7	0.731 5315	0.723 9973	0.716 5350	0.709 1438	7
8	0.776 0688	0.767 6978	0.759 4139	0.751 2162	8
9	0.813 9299	0.804 7449	0.795 6638	0.786 6849	9
10	0.846 5587	0.836 5824	0.826 7278	0.816 9931	10
11	0.874 9845	0.864 2395	0.853 6352	0.843 1695	11
12	0.899 9674	0.888 4760	0.877 1454	0.865 9733	12
13	0.922 0842	0.909 8683	0.897 8346	0.885 9803	13
14	0.941 7830	0.928 8644	0.916 1505	0.903 6377	14
15	0.959 4190	0.945 8190	0.932 4473	0.919 2997	15
16	0.975 2777	0.961 0178	0.947 0105	0.933 2510	16
17	0.989 5932	0.974 6940	0.960 0728	0.945 7242	17
18	1.002 5586	0.987 0407	0.971 8270	0.956 9113	18
19	1.014 3355	0.998 2191	0.982 4341	0.966 9729	19
20	1.025 0606	1.008 3655	0.992 0296	0.976 0443	20
21	1.034 8500	1.017 5959	1.000 7292	0.984 2405	21
22	1.043 8039	1.026 0096	1.008 6318	0.991 6600	22
23	1.052 0082	1.033 6927	1.015 8231	0.998 3877	23
24	1.059 5382	1.040 7197	1.022 3771	1.004 4975	24
25	1.066 4594	1.047 1559	1.028 3588	1.010 0535	25
26	1.072 8298	1.053 0586	1.033 8248	1.015 1121	26
27	1.078 7000	1.058 4784	1.038 8254	1.019 7227	27
28	1.084 1154	1.063 4602	1.043 4047	1.023 9292	28
29	1.089 1161	1.068 0435	1.047 6022	1.027 7705	29
30	1.093 7382	1.072 2641	1.051 4528	1.031 2809	30
31	1.098 0140	1.076 1537	1.054 9882	1.034 4914	31
32	1.101 9722	1.079 7410	1.058 2362	1.037 4296	32
33	1.105 6393	1.083 0516	1.061 2220	1.040 1200	33
34	1.109 0386	1.086 1088	1.063 9685	1.042 5851	34
35	1.112 1917	1.088 9334	1.066 4962	1.044 8446	35
36	1.115 1179	1.091 5446	1.068 8236	1.046 9169	36
37	1.117 8350	1.093 9596	1.070 9675	1.048 8180	37
38	1.120 3592	1.096 1942	1.072 9432	1.050 5629	38
39	1.122 7049	1.098 2625	1.074 7646	1.052 1649	39
40	1.124 8858	1.100 1778	1.076 4443	1.053 6362	40
41	1.126 9142	1.101 9519	1.077 9938	1.054 9878	41
42	1.128 8014	1.103 5957	1.079 4236	1.056 2298	42
43	1.130 5577	1.105 1192	1.080 7433	1.057 3714	43
44	1.132 1927	1.106 5318	1.081 9618	1.058 4208	44
45	1.133 7152	1.107 8416	1.083 0868	1.059 3859	45
46	1.135 1333	1.109 0565	1.084 1260	1.060 2734	46
47	1.136 4545	1.110 1836	1.085 0859	1.061 0898	47
48	1.137 6855	1.111 2295	1.085 9729	1.061 8409	48
49	1.138 8330	1.112 2001	1.086 7926	1.062 5320	49
50	1.139 9026	1.113 1011	1.087 5502	1.063 1680	50

Present Value of 1 per Annum at Compound Interest

$$a_{\overline{n}|} = (1 - v^n)/i$$

n	7%	7½%	8%	8½%	n
51	13.8324 7317	12.9998 2472	12.2532 2652	11.5811 9390	51
52	13.8621 2446	13.0230 9276	12.2715 0604	11.5955 7041	52
53	13.8898 3594	13.0447 3745	12.2884 3152	11.6088 2066	53
54	13.9157 3453	13.0648 7205	12.3041 0326	11.6210 3287	54
55	13.9399 3881	13.0836 0191	12.3186 1413	11.6322 8835	55
56	13.9625 5964	13.1010 2503	12.3320 5012	11.6426 6208	56
57	13.9837 0059	13.1172 3258	12.3444 9085	11.6522 2311	57
58	14.0034 5850	13.1323 0938	12.3560 1005	11.6610 3513	58
59	14.0219 2383	13.1463 3431	12.3666 7597	11.6691 5680	59
60	14.0391 8115	13.1593 8075	12.3765 5182	11.6766 4221	60
61	14.0553 0949	13.1715 1698	12.3856 9613	11.6835 4121	61
62	14.0703 8270	13.1828 0649	12.3941 6309	11.6898 9973	62
63	14.0844 6981	13.1933 0836	12.4020 0286	11.6957 6012	63
64	14.0976 3534	13.2030 7755	12.4092 6190	11.7011 6140	64
65	14.1099 3957	13 2121 6516	12.4159 8324	11.7061 3954	65
66	14.1214 3885	13.2206 1875	12.4222 0671	11.7107 2769	66
67	14.1321 8584	13.2284 8256	12.4279 6917	11.7149 5639	67
68	14.1422 2976	13.2357 9773	12.4333 0479	11.7188 5382	68
69	14.1516 1660	13.2426 0254	12.4382 4518	11.7224 4592	69
70	14.1603 8934	13.2489 3260	12.4428 1961	11.7257 5661	70
71	14.1685 8817	13.2548 2102	12.4470 5519	11.7288 0793	71
72	14.1762 5063	13.2602 9862	12.4509 7703	11.7316 2021	72
73	14.1834 1180	13.2653 9407	12.4546 0836	11.7342 1218	73
74	14.1901 0449	13.2701 3402	12.4579 7071	11.7366 0109	74
75	14.1963 5933	13.2745 4327	12.4610 8399	11.7388 0284	75
76	14.2022 0498	13.2786 4490	12.4639 6665	11.7408 3211	76
77	14.2076 6821	13.2824 6038	12.4666 3579	11.7427 0241	77
78	14.2127 7403	13.2860 0965	12.4691 0721	11.7444 2618	78
79	14.2175 4582	13.2893 1130	12.4713 9557	11.7460 1492	79
80	14.2220 0544	13.2923 8261	12.4735 1441	11.7474 7919	80
81	14.2261 7331	13.2952 3964	12.4754 7631	11.7488 2874	81
82	14.2300 6851	13.2978 9734	12.4772 9288	11.7500 7257	82
83	14.2337 0889	13.3003 6962	12.4789 7489	11.7512 1896	83
84	14.2371 1111	13.3026 6941	12.4805 3230	11.7522 7554	84
85	14.2402 9076	13.3048 0875	12.4819 7436	11.7532 4935	85
86	14.2432 6239	13.3067 9884	12.4833 0959	11.7541 4686	86
87	14.2460 3962	13.3086 5008	12.4845 4592	11.7549 7407	87
88	14.2486 3516	13.3103 7217	12.4856 9066	11.7557 3647	88
89	14.2510 6089	13.3119 7411	12.4867 5061	11.7564 3914	89
90	14.2533 2794	13.3134 6429	12.4877 3205	11.7570 8677	90
91	14.2554 4667	13.3148 5050	12.4886 4079	11.7576 8365	91
92	14.2574 2680	13.3161 4000	12.4894 8221	11.7582 3378	92
93	14.2592 7738	13.3173 3954	12.4902 6131	11.7587 4081	93
94	14.2610 0690	13.3184 5538	12.4909 8269	11.7592 0812	94
95	14.2626 2327	13.3194 9338	12.4916 5064	11.7596 3882	95
96	14.2641 3390	13.3204 5896	12.4922 6911	11.7600 3578	96
97	14.2655 4570	13.3213 5717	12.4928 4177	11.7604 0164	97
98	14.2668 6514	13.3221 9272	12.4933 7201	11.7607 3884	98
99	14.2680 9826	13.3229 6997	12.4938 6297	11.7610 4962	99
100	14.2692 5071	13.3236 9290	12.4943 1757	11.7613 3606	100

Logarithm of Present Value of 1 per Annum at Compound Interest

$$\log a_{\overline{n}|}$$

n	7%	7½%	8%	8½%	n
51	1.140 8997	1.113 9375	1.088 2505	1.063 7534	51
52	1.141 8298	1.114 7141	1.088 8979	1.064 2921	52
53	1.142 6972	1.115 4354	1.089 4964	1.064 7881	53
54	1.143 5059	1.116 1052	1.090 0499	1.065 2447	54
55	1.144 2609	1.116 7273	1.090 5619	1.065 6651	55
56	1.144 9650	1.117 3052	1.091 0353	1.066 0523	56
57	1.146 6221	1.117 8422	1.091 4732	1.066 4088	57
58	1.145 2353	1.118 3411	1.091 8783	1.066 7371	58
59	1.146 8076	1.118 8047	1.092 2530	1.067 0395	59
60	1.147 3417	1.119 2355	1.092 5997	1.067 3180	60
61	1.147 8403	1.119 6358	1.092 9204	1.067 5745	61
62	1.148 3058	1.120 0079	1.093 2172	1.067 8108	62
63	1.148 7405	1.120 3537	1.093 4918	1.068 0285	63
64	1.149 1464	1.120 6752	1.093 7460	1.068 2290	64
65	1.149 5251	1.120 9740	1.093 9811	1.068 4137	65
66	1.149 8790	1.121 2518	1.094 1987	1.068 5839	66
67	1.150 2094	1.121 5100	1.094 4001	1.068 7407	67
68	1.150 5178	1.121 7501	1.094 5866	1.068 8852	68
69	1.150 8060	1.121 9734	1.094 7592	1.069 0182	69
70	1.151 0752	1.122 1809	1.094 9188	1.069 1409	70
71	1.151 3266	1.122 3738	1.095 0666	1.069 2539	71
72	1.151 5613	1.122 5533	1.095 2034	1.069 3580	72
73	1.151 7806	1.122 7202	1.095 3301	1.069 4539	73
74	1.151 9856	1.122 8753	1.095 4473	1.069 5423	74
75	1.152 1770	1.123 0196	1.095 5558	1.069 6238	75
76	1.152 3558	1.123 1538	1.095 6563	1.069 6989	76
77	1.152 5228	1.123 2786	1.095 7493	1.069 7681	77
78	1.152 6787	1.123 3945	1.095 8353	1.069 8318	78
79	1.152 8247	1.123 5025	1.095 9151	1.069 8906	79
80	1.152 9609	1.123 6028	1.095 9888	1.069 9447	80
81	1.153 0881	1.123 6961	1.096 0572	1.069 9946	81
82	1.153 2070	1.123 7829	1.096 1204	1.070 0406	82
83	1.153 3181	1.123 8637	1.096 1789	1.070 0829	83
84	1.153 4218	1.123 9388	1.096 2331	1.070 1220	84
85	1.153 5188	1.124 0087	1.096 2833	1.070 1579	85
86	1.153 6094	1.124 0736	1.096 3298	1.070 1911	86
87	1.153 6941	1.124 1340	1.096 3727	1.070 2216	87
88	1.153 7734	1.124 1902	1.096 4125	1.070 2498	88
89	1.153 8471	1.124 2425	1.096 4494	1.070 2758	89
90	1.153 9163	1.124 2911	1.096 4836	1.070 2997	90
91	1.153 9809	1.124 3363	1.096 5152	1.070 3218	91
92	1.154 0412	1.124 3784	1.096 5444	1.070 3421	92
93	1.154 0976	1.124 4175	1.096 5715	1.070 3608	93
94	1.154 1503	1.124 4538	1.096 5966	1.070 3781	94
95	1.154 1993	1.124 4877	1.096 6199	1.070 3940	95
96	1.154 2454	1.124 5192	1.096 6413	1.070 4086	96
97	1.154 2885	1.124 5484	1.096 6612	1.070 4221	97
98	1.154 3287	1.124 5757	1.096 6796	1.070 4346	98
99	1.154 3661	1.124 6010	1.096 6967	1.070 4460	99
100	1.154 4011	1.124 6246	1.096 7126	1.070 4566	100

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4993 7578	0.4992 7190	0.4991 6806	0.4989 6050	2
3	0.3325 0139	0.3323 6300	0.3322 2469	0.3319 4829	3
4	0.2490 6445	0.2489 0890	0.2487 5347	0.2484 4291	4
5	0.1990 0250	0.1988 3673	0.1986 7111	0.1983 4026	5
6	0.1656 2803	0.1654 5552	0.1652 8317	0.1649 3898	6
7	0.1417 8928	0.1416 1200	0.1444 3491	0.1410 8133	7
8	0.1239 1035	0.1237 2953	0.1235 4895	0.1231 8845	8
9	0.1100 0462	0.1098 2111	0.1096 3785	0.1092 7209	9
10	0.0988 8015	0.0986 9451	0.0985 0915	0.0981 3929	10
11	0.0897 7840	0.0895 9106	0.0894 0403	0.0890 3090	11
12	0.0821 9370	0.0820 0496	0.0818 1657	0.0814 4082	12
13	0.0757 7595	0.0755 8607	0.0753 9656	0.0750 1866	13
14	0.0702 7510	0.0700 8426	0.0698 9383	0.0695 1416	14
15	0.0655 0777	0.0653 1613	0.0651 2491	0.0647 4378	15
16	0.0613 3642	0.0611 4409	0.0609 5224	0.0605 6988	16
17	0.0576 5587	0.0574 6297	0.0572 7056	0.0568 8720	17
18	0.0543 8433	0.0541 9094	0.0539 9807	0.0536 1387	18
19	0.0514 5722	0.0512 6341	0.0510 7015	0.0506 8525	19
20	0.0488 2288	0.0486 2870	0.0484 3511	0.0480 4963	20
21	0.0464 3947	0.0462 4499	0.0460 5112	0.0456 6517	21
22	0.0442 7278	0.0440 7804	0.0438 8393	0.0434 9760	22
23	0.0422 9455	0.0420 9958	0.0419 0528	0.0415 1865	23
24	0.0404 8121	0.0402 8606	0.0400 9159	0.0397 0472	24
25	0.0388 1298	0.0386 1767	0.0384 2307	0.0380 3603	25
26	0.0372 7312	0.0370 7767	0.0368 8297	0.0364 9581	26
27	0.0358 4736	0.0356 5180	0.0354 5702	0.0350 6978	27
28	0.0345 2347	0.0343 2783	0.0341 3299	0.0337 4572	28
29	0.0332 9093	0.0330 9521	0.0329 0034	0.0325 1307	29
30	0.0321 4059	0.0319 4482	0.0317 4992	0.0313 6270	30
31	0.0310 6449	0.0308 6869	0.0306 7379	0.0302 8663	31
32	0.0300 5569	0.0298 5987	0.0296 6497	0.0292 7791	32
33	0.0291 0806	0.0289 1222	0.0287 1734	0.0283 3041	33
34	0.0282 1620	0.0280 2037	0.0278 2552	0.0274 3873	34
35	0.0273 7533	0.0271 7951	0.0269 8470	0.0265 9809	35
36	0.0265 8121	0.0263 8541	0.0261 9066	0.0258 0423	36
37	0.0258 3004	0.0256 3428	0.0254 3958	0.0250 5336	37
38	0.0251 1843	0.0249 2271	0.0247 2808	0.0243 4208	38
39	0.0244 4335	0.0242 4767	0.0240 5311	0.0236 6736	39
40	0.0238 0204	0.0236 0642	0.0234 1194	0.0230 2644	40
41	0.0231 9204	0.0229 9648	0.0228 0210	0.0224 1685	41
42	0.0226 1112	0.0224 1562	0.0222 2133	0.0218 3637	42
43	0.0220 5724	0.0218 6181	0.0216 6762	0.0212 8295	43
44	0.0215 2855	0.0213 3321	0.0211 3913	0.0207 5474	44
45	0.0210 2339	0.0208 2813	0.0206 3416	0.0202 5008	45
46	0.0205 4022	0.0203 4504	0.0201 5118	0.0197 6743	46
47	0.0200 7762	0.0198 8254	0.0196 8880	0.0193 0537	47
48	0.0196 3433	0.0194 3933	0.0192 4572	0.0188 6263	48
49	0.0192 0915	0.0190 1425	0.0188 2077	0.0184 3801	49
50	0.0188 0099	0.0186 0620	0.0184 1285	0.0180 3044	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.698 4275	9.698 3371	9.698 2468	9.698 0661	2
3	9.521 7935	9.521 6127	9.521 4319	9.521 0704	3
4	9.396 3118	9.396 0404	9.395 7691	9.395 2266	4
5	9.298 8585	9.298 4966	9.298 1347	9.297 4109	5
6	9.219 1339	9.218 6811	9.218 2287	9.217 3233	6
7	9.151 6433	9.151 1000	9.150 5566	9.149 4696	7
8	9.093 1075	9.092 4734	9.091 8391	9.090 5700	8
9	9.041 4109	9.040 6859	9.039 9605	9.038 5093	9
10	8.995 1091	8.994 2920	8.993 4766	8.991 8429	10
11	8.953 1719	8.952 2647	8.951 3571	8.949 5408	11
12	8.914 8385	8.913 8401	8.912 8413	8.910 8421	12
13	8.879 5314	8.878 4418	8.877 3515	8.875 1693	13
14	8.846 8015	8.845 6205	8.844 4388	8.842 0732	14
15	8.816 2928	8.815 0204	8.813 7472	8.811 1981	15
16	8.787 7184	8.786 3546	8.784 9896	8.782 2567	16
17	8.760 8435	8.759 3881	8.757 9314	8.754 0145	17
18	8.735 4738	8.733 9267	8.732 3782	8.729 2771	18
19	8.711 4463	8.709 8075	8.708 1671	8.704 8815	19
20	8.688 6233	8.686 8927	8.685 1603	8.681 6901	20
21	8.666 8873	8.665 0647	8.663 2402	8.659 5850	21
22	8.646 1368	8.644 2223	8.642 3055	8.638 4653	22
23	8.626 2844	8.624 2777	8.622 2688	8.618 2431	23
24	8.607 2535	8.605 1547	8.603 0532	8.598 8422	24
25	8.588 9770	8.586 7860	8.584 5920	8.580 1952	25
26	8.571 3957	8.569 1124	8.566 8259	8.562 2430	26
27	8.554 4572	8.552 0814	8.549 7022	8.544 9331	27
28	8.538 1145	8.535 6463	8.533 1743	8.528 2187	28
29	8.522 3259	8.519 7652	8.517 2003	8.512 0580	29
30	8.507 0538	8.504 4005	8.501 7426	8.496 4134	30
31	8.492 2643	8.489 5182	8.486 7674	8.481 2510	31
32	8.477 9266	8.475 0879	8.472 2438	8.466 5400	32
33	8.464 0131	8.461 0815	8.458 1442	8.452 2529	33
34	8.450 4984	8.447 4738	8.444 4432	8.438 3641	34
35	8.437 3594	8.434 2417	8.431 1176	8.424 8505	35
36	8.424 5748	8.421 3639	8.418 1463	8.411 6909	36
37	8.412 1250	8.408 8210	8.405 5098	8.398 8660	37
38	8.399 9926	8.396 5953	8.393 1904	8.386 3577	38
39	8.388 1607	8.384 6700	8.381 1712	8.374 1497	39
40	8.376 6141	8.373 0300	8.369 4374	8.362 2268	40
41	8.365 3390	8.361 6613	8.357 9747	8.350 5747	41
42	8.354 3220	8.350 5507	8.346 7700	8.339 1804	42
43	8.343 5511	8.339 6862	8.335 8112	8.328 0317	43
44	8.333 0149	8.329 0561	8.325 0870	8.317 1174	44
45	8.322 7028	8.318 6502	8.314 5866	8.306 4268	45
46	8.312 6049	8.308 4585	8.304 3005	8.295 9502	46
47	8.302 7123	8.298 4718	8.294 2192	8.285 6781	47
48	8.293 0160	8.288 6814	8.284 3342	8.275 6021	48
49	8.283 5081	8.279 0792	8.274 6373	8.265 7141	49
50	8.274 1808	8.269 6577	8.265 1209	8.256 0063	50

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	0.0184 0886	0.0182 1418	0.0180 2096	0.0176 3891	51
52	0.0180 3184	0.0178 3726	0.0176 4418	0.0172 6249	52
53	0.0176 6906	0.0174 7460	0.0172 8168	0.0169 0033	53
54	0.0173 1974	0.0171 2539	0.0169 3259	0.0165 5164	54
55	0.0169 8314	0.0167 8890	0.0165 9625	0.0162 1567	55
56	0.0166 5858	0.0164 6446	0.0162 7196	0.0158 9176	56
57	0.0163 4542	0.0161 5143	0.0159 5908	0.0155 7927	57
58	0.0160 4308	0.0158 4921	0.0156 5702	0.0152 7760	58
59	0.0157 5101	0.0155 5727	0.0153 6523	0.0149 8620	59
60	0.0154 6869	0.0152 7508	0.0150 8319	0.0147 0457	60
61	0.0151 9564	0.0150 0216	0.0148 1044	0.0144 3221	61
62	0.0149 3142	0.0147 3807	0.0145 4651	0.0141 6869	62
63	0.0146 7561	0.0144 8239	0.0142 9099	0.0139 1358	63
64	0.0144 2780	0.0142 3472	0.0140 4348	0.0136 6649	64
65	0.0141 8764	0.0139 9469	0.0138 0362	0.0134 2704	65
66	0.0139 5476	0.0137 6196	0.0135 7105	0.0131 9489	66
67	0.0137 2886	0.0135 3619	0.0133 4545	0.0129 6972	67
68	0.0135 0961	0.0133 1709	0.0131 2652	0.0127 5121	68
69	0.0132 9674	0.0131 0436	0.0129 1396	0.0125 3908	69
70	0.0130 8996	0.0128 9772	0.0127 0750	0.0123 3304	70
71	0.0128 8902	0.0126 9693	0.0125 0688	0.0121 3285	71
72	0.0126 9368	0.0125 0173	0.0123 1185	0.0119 3827	72
73	0.0125 0370	0.0123 1190	0.0121 2220	0.0117 4905	73
74	0.0123 1887	0.0121 2722	0.0119 3770	0.0115 6498	74
75	0.0121 3898	0.0119 4748	0.0117 5814	0.0113 8586	75
76	0.0119 6385	0.0117 7250	0.0115 8333	0.0112 1150	76
77	0.0117 9327	0.0116 0207	0.0114 1308	0.0110 4170	77
78	0.0116 2708	0.0114 3603	0.0112 4723	0.0108 7629	78
79	0.0114 6511	0.0112 7422	0.0110 8559	0.0107 1510	79
80	0.0113 0721	0.0111 1647	0.0109 2802	0.0105 5798	80
81	0.0111 5321	0.0109 6263	0.0107 7437	0.0104 0477	81
82	0.0110 0298	0.0108 1256	0.0106 2448	0.0102 5534	82
83	0.0108 5639	0.0106 6612	0.0104 7823	0.0101 0954	83
84	0.0107 1330	0.0105 2318	0.0103 3548	0.0099 6724	84
85	0.0105 7359	0.0103 8363	0.0101 9611	0.0098 2833	85
86	0.0104 3714	0.0102 4734	0.0100 6000	0.0096 9268	86
87	0.0103 0384	0.0101 1419	0.0099 2705	0.0095 6018	87
88	0.0101 7357	0.0099 8409	0.0097 9713	0.0094 3073	88
89	0.0100 4625	0.0098 5693	0.0096 7016	0.0093 0422	89
90	0.0099 2177	0.0097 3261	0.0095 4603	0.0091 8055	90
91	0.0098 0004	0.0096 1104	0.0094 2464	0.0090 5962	91
92	0.0096 8096	0.0094 9212	0.0093 0592	0.0089 4136	92
93	0.0095 6446	0.0093 7578	0.0091 8977	0.0088 2568	93
94	0.0094 5044	0.0092 6193	0.0090 7611	0.0087 1248	94
95	0.0093 3884	0.0091 5049	0.0089 6486	0.0086 0170	95
96	0.0092 2957	0.0090 4139	0.0088 5595	0.0084 9325	96
97	0.0091 2257	0.0089 3455	0.0087 4930	0.0083 8707	97
98	0.0090 1776	0.0088 2990	0.0086 4485	0.0082 8309	98
99	0.0089 1508	0.0087 2738	0.0085 4252	0.0081 8124	99
100	0.0088 1446	0.0086 2693	0.0084 4226	0.0080 8145	100

$\log s^{-1}_{\overline{n}|}$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	8.265 0270	8.260 4096	8.255 7779	8.246 4717	51
52	8.256 0400	8.251 3282	8.246 6015	8.237 1034	52
53	8.247 2135	8.242 4071	8.237 5853	8.227 8952	53
54	8.238 5414	8.233 6404	8.228 7234	8.218 8409	54
55	8.230 0178	8.225 0223	8.220 0100	8.209 9350	55
56	8.221 6378	8.216 5476	8.211 4398	8.201 1721	56
57	8.213 3960	8.208 2109	8.203 0077	8.192 5471	57
58	8.205 2878	8.200 0078	8.194 7089	8.184 0551	58
59	8.197 3084	8.191 9334	8.186 5388	8.175 6916	59
60	8.189 4535	8.183 9835	8.178 4931	8.167 4523	60
61	8.181 7191	8.176 1538	8.170 5678	8.159 3329	61
62	8.174 1012	8.168 4407	8.162 7586	8.151 3298	62
63	8.166 5961	8.160 8403	8.155 0621	8.143 4389	63
64	8.159 2001	8.153 3490	8.147 4746	8.135 6569	64
65	8.151 9100	8.145 9633	8.139 9928	8.127 9803	65
66	8.144 7225	8.138 6802	8.132 6133	8.120 4059	66
67	8.137 6344	8.131 4965	8.125 3333	8.112 9306	67
68	8.130 6429	8.124 4093	8.118 1495	8.105 5514	68
69	8.123 7451	8.117 4157	8.111 0593	8.098 2655	69
70	8.116 9383	8.110 5129	8.104 0599	8.091 0702	70
71	8.110 2198	8.103 6986	8.097 1487	8.083 9630	71
72	8.103 5874	8.096 9701	8.090 3233	8.076 9413	72
73	8.097 0385	8.090 3251	8.083 5813	8.070 0027	73
74	8.090 5709	8.083 7613	8.076 9204	8.063 1450	74
75	8.084 1823	8.077 2764	8.070 3384	8.056 3660	75
76	8.077 8708	8.070 8685	8.063 8332	8.049 6637	76
77	8.071 6342	8.064 5355	8.057 4028	8.043 0358	77
78	8.065 4706	8.058 2755	8.051 0453	8.036 4806	78
79	8.059 3783	8.052 0865	8.044 7588	8.029 9962	79
80	8.053 3553	8.045 9667	8.038 5414	8.023 5807	80
81	8.047 3999	8.039 9146	8.032 3916	8.017 2325	81
82	8.041 5105	8.033 9284	8.026 3075	8.010 9499	82
83	8.035 6855	8.028 0064	8.020 2876	8.004 7313	83
84	8.029 9234	8.022 1471	8.014 3304	7.998 5750	84
85	8.024 2224	8.016 3492	8.008 4343	7.992 4797	85
86	8.018 5814	8.010 6110	8.002 5979	7.986 4439	86
87	8.012 9989	8.004 9319	7.996 8199	7.980 4662	87
88	8.007 4736	7.999 3086	7.991 0988	7.974 5452	88
89	8.002 0041	7.993 7417	7.985 4335	7.968 6798	89
90	7.996 5893	7.988 2293	7.979 8225	7.962 8685	90
91	7.991 2278	7.982 7703	7.974 2648	7.957 1102	91
92	7.985 9185	7.977 3634	7.968 7591	7.951 4037	92
93	7.980 6603	7.972 0074	7.963 3045	7.945 7480	93
94	7.975 4521	7.966 7014	7.957 8994	7.940 1419	94
95	7.970 2929	7.961 4443	7.952 5432	7.934 5842	95
96	7.965 1816	7.956 2350	7.947 2347	7.929 0741	96
97	7.960 1171	7.951 0725	7.941 9731	7.923 6105	97
98	7.955 0986	7.945 9558	7.936 7571	7.918 1924	98
99	7.950 1251	7.940 8841	7.931 5859	7.912 8189	99
100	7.945 1957	7.935 8563	7.926 4586	7.907 4891	100

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	0.0087 1584	0.0085 2848	0.0083 4400	0.0079 8366	101
102	0.0086 1917	0.0084 3198	0.0082 4769	0.0078 8782	102
103	0.0085 2439	0.0083 3736	0.0081 5327	0.0077 9387	103
104	0.0084 3144	0.0082 4457	0.0080 6068	0.0077 0175	104
105	0.0083 4027	0.0081 5357	0.0079 6987	0.0076 1142	105
106	0.0082 5083	0.0080 6430	0.0078 8079	0.0075 2281	106
107	0.0081 6307	0.0079 7670	0.0077 9340	0.0074 3589	107
108	0.0080 7694	0.0078 9075	0.0077 0764	0.0073 5061	108
109	0.0079 9241	0.0078 0638	0.0076 2346	0.0072 6691	109
110	0.0079 0942	0.0077 2356	0.0075 4084	0.0071 8476	110
111	0.0078 2793	0.0076 4225	0.0074 5972	0.0071 0412	111
112	0.0077 4791	0.0075 6240	0.0073 8007	0.0070 2495	112
113	0.0076 6932	0.0074 8397	0.0073 0184	0.0069 4719	113
114	0.0075 9211	0.0074 0693	0.0072 2500	0.0068 7083	114
115	0.0075 1625	0.0073 3125	0.0071 4952	0.0067 9582	115
116	0.0074 4172	0.0072 5688	0.0070 7535	0.0067 2213	116
117	0.0073 6846	0.0071 8380	0.0070 0246	0.0066 4973	117
118	0.0072 9646	0.0071 1196	0.0069 3082	0.0065 7857	118
119	0.0072 2567	0.0070 4135	0.0068 6041	0.0065 0863	119
120	0.0071 5608	0.0069 7192	0.0067 9118	0.0064 3988	120
121	0.0070 8764	0.0069 0365	0.0067 2311	0.0063 7230	121
122	0.0070 2033	0.0068 3652	0.0066 5617	0.0063 0584	122
123	0.0069 5412	0.0067 7048	0 0065 9034	0.0062 4049	123
124	0.0068 8899	0.0067 0552	0.0065 2558	0.0061 7621	124
125	0.0068 2491	0.0066 4162	0.0064 6188	0.0061 1298	125
126	0.0067 6186	0.0065 7874	0.0063 9919	0.0060 5078	126
127	0.0066 9981	0.0065 1686	0.0063 3751	0.0059 8959	127
128	0.0066 3873	0.0064 5595	0.0062 7681	0.0059 2937	128
129	0.0065 7861	0.0063 9601	0.0062 1707	0.0058 7010	129
130	0.0065 1942	0.0063 3699	0.0061 5825	0.0058 1177	130
131	0.0064 6115	0.0062 7889	0.0061 0035	0.0057 5435	131
132	0.0064 0376	0.0062 2168	0.0060 4334	0.0056 9782	132
133	0.0063 4725	0.0061 6534	0.0059 8720	0.0056 4216	133
134	0.0062 9159	0.0061 0985	0.0059 3191	0.0055 8736	134
135	0.0062 3675	0.0060 5519	0.0058 7745	0.0055 3339	135
136	0.0061 8274	0.0060 0135	0.0058 2381	0.0054 8023	136
137	0.0061 2952	0.0059 4830	0.0057 7097	0.0054 2787	137
138	0.0060 7707	0.0058 9603	0.0057 1890	0.0053 7628	138
139	0.0060 2539	0.0058 4453	0.0056 6760	0.0053 2546	139
140	0.0059 7446	0.0057 9377	0.0056 1704	0.0052 7539	140
141	0.0059 2425	0.0057 4373	0.0055 6721	0.0052 2604	141
142	0.0058 7476	0.0056 9442	0.0055 1809	0.0051 7741	142
143	0.0058 2597	0.0056 4580	0.0054 6968	0.0051 2948	143
144	0.0057 7787	0.0055 9787	0.0054 2195	0.0050 8224	144
145	0.0057 3043	0.0055 5061	0.0053 7489	0.0050 3566	145
146	0.0056 8365	0.0055 0401	0.0053 2849	0.0049 8975	146
147	0.0056 3752	0.0054 5805	0.0052 8273	0.0049 4447	147
148	0.0055 9201	0.0054 1272	0.0052 3760	0.0048 9983	148
149	0.0055 4712	0.0053 6800	0.0051 9309	0.0048 5580	149
150	0.0055 0284	0.0053 2390	0.0051 4919	0.0048 1238	150

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	7.940 3095	7.930 8717	7.921 3745	7.902 2021	101
102	7.935 4656	7.925 9294	7.916 3325	7.896 9571	102
103	7.930 6633	7.921 0285	7.911 3317	7.891 7532	103
104	7.925 9016	7.916 1682	7.906 3716	7.886 5896	104
105	7.921 1799	7.911 3478	7.901 4513	7.881 4656	105
106	7.916 4974	7.906 5665	7.896 5799	7.876 3803	106
107	7.911 8533	7.901 8235	7.891 7268	7.871 3331	107
108	7.907 2469	7.897 1182	7.886 9212	7.866 3232	108
109	7.902 6775	7.892 4498	7.882 1524	7.861 3499	109
110	7 898 1445	7 887 8176	7 877 4198	7 856 4125	110
111	7 893 6471	7.883 2210	7.872 7227	7.851 5104	111
112	7.889 1847	7.878 6594	7.868 0605	7.846 6429	112
113	7.884 7567	7.874 1320	7.863 4325	7.841 8095	113
114	7.880 3626	7.869 6385	7.858 8380	7.837 0094	114
115	7.876 0016	7.865 1779	7.854 2766	7.832 2421	115
116	7.871 6732	7.860 7500	7.849 7477	7.827 5071	116
117	7.867 3769	7.856 3540	7.845 2506	7.822 8037	117
118	7.863 1121	7.851 9894	7.840 7849	7.818 1314	118
119	7.858 8782	7.847 6557	7.836 3499	7.813 4898	119
120	7.854 6749	7.843 3524	7.831 9453	7.808 8781	120
121	7.850 5014	7.839 0789	7.827 5703	7.804 2960	121
122	7.846 3573	7.834 8348	7.823 2247	7.799 7429	122
123	7.842 2423	7.830 6196	7.818 9078	7.795 2185	123
124	7.838 1557	7.826 4328	7.814 6193	7.790 7220	124
125	7.834 0972	7.822 2739	7.810 3586	7.786 2532	125
126	7.830 0662	7.818 1425	7.806 1253	7.781 8117	126
127	7.826 0623	7.814 0381	7.801 9189	7.777 3968	127
128	7.822 0851	7.809 9604	7.797 7391	7.773 0082	128
129	7.818 1342	7.805 9089	7.793 5854	7.768 6456	129
130	7.814 2093	7.801 8832	7.789 4574	7.764 3083	130
131	7.810 3097	7.797 8828	7.785 3547	7.759 9962	131
132	7.806 4353	7.793 9076	7.781 2769	7.755 7088	132
133	7.802 5855	7.789 9568	7.777 2236	7.751 4458	133
134	7.798 7601	7.786 0303	7.773 1946	7.747 2066	134
135	7.794 9587	7.782 1277	7.769 1892	7.742 9910	135
136	7.791 1809	7.778 2487	7.765 2073	7.738 7986	136
137	7.787 4262	7.774 3929	7.761 2486	7.734 6291	137
138	7.783 6945	7.770 5598	7.757 3125	7.730 4821	138
139	7.779 9855	7.766 7493	7.753 3989	7.726 3573	139
140	7.776 2986	7.762 9609	7.749 5073	7.722 2544	140
141	7.772 6338	7.759 1944	7.745 6375	7.718 1729	141
142	7.768 9904	7.755 4494	7.741 7891	7.714 1128	142
143	7.765 3685	7.751 7257	7.737 9619	7.710 0736	143
144	7.761 7675	7.748 0229	7.734 1555	7.706 0550	144
145	7.758 1873	7.744 3407	7.730 3697	7.702 0567	145
146	7.754 6275	7.740 6789	7.726 6041	7.698 0784	146
147	7.751 0878	7.737 0371	7.722 8586	7.694 1199	147
148	7.747 5681	7.733 4152	7.719 1327	7.690 1810	148
149	7.744 0679	7.729 8128	7.715 4262	7.686 2612	149
150	7.740 5871	7.726 2296	7.711 7390	7.682 3604	150

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	0.0054 5915	0.0052 8038	0.0051 0588	0.0047 6956	151
152	0.0054 1605	0.0052 3745	0.0050 6315	0.0047 2731	152
153	0.0053 7351	0.0051 9509	0.0050 2099	0.0046 8564	153
154	0.0053 3153	0.0051 5329	0.0049 7939	0.0046 4453	154
155	0.0052 9010	0.0051 1203	0.0049 3834	0.0046 0396	155
156	0.0052 4921	0.0050 7132	0.0048 9783	0.0045 6393	156
157	0.0052 0885	0.0050 3113	0.0048 5784	0.0045 2443	157
158	0.0051 6900	0.0049 9146	0.0048 1837	0.0044 8545	158
159	0.0051 2966	0.0049 5230	0.0047 7941	0.0044 4697	159
160	0.0050 9082	0.0049 1363	0.0047 4095	0.0044 0899	160
161	0.0050 5246	0.0048 7545	0.0047 0298	0.0043 7150	161
162	0.0050 1459	0.0048 3776	0.0046 6549	0.0043 3450	162
163	0.0049 7719	0.0048 0053	0.0046 2846	0.0042 9796	163
164	0.0049 4025	0.0047 6377	0.0045 9190	0.0042 6188	164
165	0.0049 0377	0.0047 2746	0.0045 5580	0.0042 2626	165
166	0.0048 6773	0.0046 9160	0.0045 2014	0.0041 9109	166
167	0.0048 3213	0.0046 5617	0.0044 8492	0.0041 5635	167
168	0.0047 9695	0.0046 2118	0.0044 5012	0.0041 2204	168
169	0.0047 6220	0.0045 8660	0.0044 1575	0.0040 8815	169
170	0.0047 2787	0.0045 5244	0.0043 8180	0.0040 5468	170
171	0.0046 9394	0.0045 1869	0.0043 4825	0.0040 2162	171
172	0.0046 6042	0.0044 8534	0.0043 1510	0.0039 8896	172
173	0.0046 2728	0.0044 5239	0.0042 8235	0.0039 5669	173
174	0.0045 9454	0.0044 1982	0.0042 4998	0.0039 2481	174
175	0.0045 6217	0.0043 8763	0.0042 1800	0.0038 9330	175
176	0.0045 3018	0.0043 5581	0.0041 8639	0.0038 6217	176
177	0.0044 9855	0.0043 2436	0.0041 5514	0.0038 3141	177
178	0.0044 6729	0.0042 9327	0.0041 2426	0.0038 0101	178
179	0.0044 3638	0.0042 6254	0.0040 9373	0.0037 7097	179
180	0.0044 0582	0.0042 3215	0.0040 6355	0.0037 4127	180
181	0.0043 7560	0.0042 0212	0.0040 3371	0.0037 1192	181
182	0.0043 4572	0.0041 7242	0.0040 0421	0.0036 8290	182
183	0.0043 1617	0.0041 4305	0.0039 7504	0.0036 5422	183
184	0.0042 8695	0.0041 1400	0.0039 4620	0.0036 2586	184
185	0.0042 5805	0.0040 8528	0.0039 1768	0.0035 9782	185
186	0.0042 2947	0.0040 5687	0.0038 8948	0.0035 7010	186
187	0.0042 0120	0.0040 2878	0.0038 6159	0.0035 4269	187
188	0.0041 7323	0.0040 0099	0.0038 3400	0.0035 1559	188
189	0.0041 4557	0.0039 7350	0.0038 0672	0.0034 8879	189
190	0.0041 1820	0.0039 4631	0.0037 7973	0.0034 6228	190
191	0.0040 9112	0.0039 1941	0.0037 5304	0.0034 3607	191
192	0.0040 6434	0.0038 9280	0.0037 2663	0.0034 1014	192
193	0.0040 3783	0.0038 6647	0.0037 0050	0.0033 8450	193
194	0.0040 1160	0.0038 4042	0.0036 7466	0.0033 5913	194
195	0.0039 8565	0.0038 1465	0.0036 4908	0.0033 3404	195
196	0.0039 5997	0.0037 8914	0.0036 2378	0.0033 0922	196
197	0.0039 3455	0.0037 6390	0.0035 9874	0.0032 8467	197
198	0.0039 0939	0.0037 3892	0.0035 7397	0.0032 6037	198
199	0.0038 8450	0.0037 1420	0.0035 4945	0.0032 3634	199
200	0.0038 5985	0.0036 8974	0.0035 2519	0.0032 1255	200

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	7.737 1253	7.722 6655	7.708 0705	7.678 4781	151
152	7.733 6824	7.719 1200	7.704 4208	7.674 6144	152
153	7.730 2580	7.715 5931	7.700 7896	7.670 7689	153
154	7.726 8520	7.712 0845	7.697 1763	7.666 9413	154
155	7.723 4641	7.708 5937	7.693 5811	7.663 1315	155
156	7.720 0939	7.705 1208	7.690 0036	7.659 3390	156
157	7.716 7415	7.701 6655	7.686 4434	7.655 5638	157
158	7.713 4064	7.698 2274	7.682 9005	7.651 8056	158
159	7.710 0885	7.694 8066	7.679 3746	7.648 0643	159
160	7.706 7876	7.691 4024	7.675 8655	7.644 3394	160
161	7.703 5034	7.688 0151	7.672 3730	7.640 6309	161
162	7.700 2357	7.684 6441	7.668 8969	7.636 9386	162
163	7.696 9843	7.681 2894	7.665 4368	7.633 2622	163
164	7.693 7491	7.677 9507	7.661 9927	7.629 6015	164
165	7.690 5298	7.674 6278	7.658 5644	7.625 9563	165
166	7.687 3262	7.671 3207	7.655 1517	7.622 3266	166
167	7.684 1383	7.668 0290	7.651 7543	7.618 7119	167
168	7.680 9655	7.664 7525	7.648 3720	7.615 1122	168
169	7.677 8080	7.661 4911	7.645 0048	7.611 5273	169
170	7.674 6655	7.658 2446	7.641 6524	7.607 9570	170
171	7.671 5377	7.655 0130	7.638 3146	7.604 4011	171
172	7.668 4247	7.651 7957	7.634 9913	7.600 8595	172
173	7.665 3260	7.648 5929	7.631 6822	7.597 3319	173
174	7.662 2416	7.645 4043	7.628 3873	7.593 8182	174
175	7.659 1714	7.642 2298	7.625 1064	7.590 3183	175
176	7.656 1152	7.639 0691	7.621 8392	7.586 8319	176
177	7.653 0726	7.635 9221	7.618 5856	7.583 3590	177
178	7.650 0438	7.632 7887	7.615 3456	7.579 8993	178
179	7.647 0284	7.629 6687	7.612 1188	7.576 4527	179
180	7.644 0264	7.626 5620	7.608 9051	7.573 0190	180
181	7.641 0376	7.623 4683	7.605 7046	7.569 5981	181
182	7.638 0617	7.620 3876	7.602 5168	7.566 1899	182
183	7.635 0988	7.617 3197	7.599 3419	7.562 7942	183
184	7.632 1486	7.614 2645	7.596 1794	7.559 4108	184
185	7.629 2110	7.611 2218	7.593 0293	7.556 0397	185
186	7.626 2859	7.608 1915	7.589 8916	7.552 6807	186
187	7.623 3731	7.605 1734	7.586 7661	7.549 3336	187
188	7.620 4725	7.602 1675	7.583 6526	7.545 9983	188
189	7.617 5841	7.599 1736	7.580 5509	7.542 6747	189
190	7.614 7075	7.596 1914	7.577 4611	7.539 3626	190
191	7.611 8427	7.593 2210	7.574 3829	7.536 0619	191
192	7.608 9896	7.590 2623	7.571 3161	7.532 7726	192
193	7.606 1480	7.587 3150	7.568 2608	7.529 4945	193
194	7.603 3180	7.584 3791	7.565 2167	7.526 2274	194
195	7.600 4991	7.581 4543	7.562 1838	7.522 9712	195
196	7.597 6915	7.578 5408	7.559 1619	7.519 7258	196
197	7.594 8951	7.575 6382	7.556 1509	7.516 4911	197
198	7.592 1095	7.572 7465	7.553 1508	7.513 2671	198
199	7.589 3348	7.569 8656	7.550 1613	7.510 0535	199
200	7.586 5709	7.566 9954	7.547 1824	7.506 8502	200

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{n|} = i/[(1+i)^n - 1]$$

n	½%	7/12%	⅝%	⅔%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4987 5312	0.4985 4591	0.4984 4237	0.4983 3887	2
3	0.3316 7221	0.3313 9643	0.3312 5865	0.3311 2095	3
4	0.2481 3279	0.2478 2310	0.2476 6842	0.2475 1384	4
5	0.1980 0997	0.1976 8024	0.1975 1558	0.1973 5105	5
6	0.1645 9546	0.1642 5260	0.1640 8143	0.1639 1042	6
7	0.1407 2854	0.1403 7653	0.1402 0082	0.1400 2531	7
8	0.1228 2886	0.1224 7018	0.1222 9118	0.1221 1240	8
9	0.1089 0736	0.1085 4365	0.1083 6218	0.1081 8096	9
10	0.0977 7057	0.0974 0299	0.0972 1962	0.0970 3654	10
11	0.0886 5903	0.0882 8842	0.0881 0358	0.0879 1905	11
12	0.0810 6643	0.0806 9341	0.0805 0742	0.0803 2176	12
13	0.0746 4224	0.0742 6730	0.0740 8039	0.0738 9385	13
14	0.0691 3609	0.0687 5962	0.0685 7198	0.0683 8474	14
15	0.0643 6436	0.0639 8666	0.0637 9845	0.0636 1067	15
16	0.0601 8937	0.0598 1068	0.0596 2202	0.0594 3382	16
17	0.0565 0579	0.0561 2632	0.0559 3732	0.0557 4879	17
18	0.0532 3173	0.0528 5165	0.0526 6239	0.0524 7363	18
19	0.0503 0253	0.0499 2198	0.0497 3252	0.0495 4360	19
20	0.0476 6645	0.0472 8556	0.0470 9597	0.0469 0695	20
21	0.0452 8163	0.0449 0050	0.0447 1083	0.0445 2176	21
22	0.0431 1380	0.0427 3251	0.0425 4281	0.0423 5374	22
23	0.0411 3465	0.0407 5329	0.0405 6360	0.0403 7456	23
24	0.0393 2061	0.0389 3925	0.0387 4959	0.0385 6062	24
25	0.0376 5186	0.0372 7055	0.0370 8096	0.0368 9209	25
26	0.0361 1163	0.0357 3043	0.0355 4094	0.0353 5219	26
27	0.0346 8565	0.0343 0460	0.0341 1523	0.0339 2664	27
28	0.0333 6167	0.0329 8082	0.0327 9159	0.0326 0316	28
29	0.0321 2914	0.0317 4853	0.0315 5946	0.0313 7122	29
30	0.0309 7892	0.0305 9857	0.0304 0969	0.0302 2165	30
31	0.0299 0304	0.0295 2299	0.0293 3430	0.0291 4649	31
32	0.0288 9453	0.0285 1482	0.0283 2633	0.0281 3875	32
33	0.0279 4727	0.0275 6791	0.0273 7964	0.0271 9231	33
34	0.0270 5586	0.0266 7687	0.0264 8883	0.0263 0176	34
35	0.0262 1550	0.0258 3691	0.0256 4911	0.0254 6231	35
36	0.0254 2194	0.0250 4376	0.0248 5622	0.0246 6970	36
37	0.0246 7139	0.0242 9365	0.0241 0636	0.0239 2013	37
38	0.0239 6045	0.0235 8316	0.0233 9614	0.0232 1020	38
39	0.0232 8607	0.0229 0925	0.0227 2250	0.0225 3687	39
40	0.0226 4552	0.0222 6917	0.0220 8271	0.0218 9739	40
41	0.0220 3631	0.0216 6046	0.0214 7429	0.0212 8928	41
42	0.0214 5622	0.0210 8087	0.0208 9499	0.0207 1030	42
43	0.0209 0320	0.0205 2836	0.0203 4278	0.0201 5842	43
44	0.0203 7541	0.0200 0110	0.0198 1583	0.0196 3180	44
45	0.0198 7117	0.0194 9740	0.0193 1243	0.0191 2874	45
46	0.0193 8894	0.0190 1571	0.0188 3106	0.0186 4772	46
47	0.0189 2733	0.0185 5465	0.0183 7032	0.0181 8732	47
48	0.0184 8503	0.0181 1291	0.0179 2890	0.0177 4625	48
49	0.0180 6087	0.0176 8932	0.0175 0563	0.0173 2334	49
50	0.0176 5376	0.0172 8278	0.0170 9943	0.0169 1749	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_{\overline{n}|}^{-1}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.697 8856	9.697 7052	9.697 6149	9.697 5248	2
3	9.520 7090	9.520 3478	9.520 1673	9.519 9867	3
4	9.394 6841	9.394 1418	9.393 8707	9.393 5995	4
5	9.296 6870	9.295 9633	9.295 6014	9.295 2394	5
6	9.216 4179	9.215 5123	9.215 0594	9.214 6066	6
7	9.148 3822	9.147 2945	9.146 7505	9.146 2066	7
8	9.089 3004	9.088 0304	9.087 3952	9.086 7598	8
9	9.037 0573	9.035 6044	9.034 8777	9.034 1509	9
10	8.990 2082	8.988 5723	8.987 7540	8.986 9353	10
11	8.947 7230	8.945 9037	8.944 9935	8.944 0830	11
12	8.908 8409	8.906 8381	8.905 8359	8.904 8332	12
13	8.872 9847	8.870 7976	8.869 7033	8.868 6083	13
14	8.839 7048	8.837 3334	8.836 1467	8.834 9592	14
15	8.808 6455	8.806 0895	8.804 8102	8.803 5300	15
16	8.779 5198	8.776 7787	8.775 4067	8.774 0336	16
17	8.752 0929	8.749 1666	8.747 7017	8.746 2355	17
18	8.726 1706	8.723 0686	8.721 5005	8.719 9412	18
19	8.701 5898	8.698 2918	8.696 6405	8.694 9877	19
20	8.678 2128	8.674 7285	8.672 9837	8.671 2373	20
21	8.655 9221	8.652 2512	8.650 4127	8.648 5723	21
22	8.634 6162	8.630 7584	8.628 8262	8.626 8918	22
23	8.614 2078	8.610 1627	8.608 1365	8.606 1079	23
24	8.594 6203	8.590 3876	8.588 2672	8.586 1440	24
25	8.575 7864	8.571 3657	8.560 1511	8.566 9333	25
26	8.557 6471	8.553 0382	8.550 7289	8.548 4164	26
27	8.540 1498	8.535 3523	8.532 9483	8.530 5409	27
28	8.523 2477	8.518 2614	8.515 7625	8.513 2598	28
29	8.506 8991	8.501 7235	8.499 1296	8.496 5315	29
30	8.491 0663	8.485 7012	8.483 0120	8.480 3183	30
31	8.475 7153	8.470 1605	8.467 3757	8.464 5863	31
32	8.460 8156	8.455 0705	8.452 1903	8.449 3049	32
33	8.446 3394	8.440 4039	8.437 4278	8.434 4462	33
34	8.432 2613	8.426 1349	8.423 0628	8.419 9849	34
35	8.418 5581	8.412 2405	8.409 0723	8.405 8978	35
36	8.405 2086	8.398 6996	8.395 4351	8.392 1638	36
37	8.392 1936	8.385 4927	8.382 1316	8.378 7635	37
38	8.379 4949	8.372 6019	8.369 1442	8.365 6790	38
39	8.367 0962	8.360 0108	8.356 4562	8.352 8936	39
40	8.354 9823	8.347 7041	8.344 0524	8.340 3924	40
41	8.343 1390	8.335 6676	8.331 9187	8.328 1610	41
42	8.331 5532	8.323 8885	8.320 0422	8.316 1866	42
43	8.320 2127	8.312 3543	8.308 4104	8.304 4567	43
44	8.309 1063	8.301 0539	8.297 0122	8.292 9602	44
45	8.298 2234	8.289 9766	8.285 8370	8.281 6865	45
46	8.287 5541	8.279 1126	8.274 8749	8.270 6258	46
47	8.277 0893	8.268 4527	8.264 1167	8.259 7688	47
48	8.266 8201	8.257 9883	8.254 5537	8.249 1068	48
49	8.256 8387	8.247 7111	8.243 1779	8.238 6317	49
50	8.246 8372	8.237 6137	8.232 9816	8.228 3359	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-} = i/[(1+i)^n - 1]$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	0.0172 6269	0.0168 9230	0.0167 0928	0.0165 2770	51
52	0.0168 8675	0.0165 1694	0.0163 3425	0.0161 5304	52
53	0.0165 2507	0.0161 5585	0.0159 7350	0.0157 9265	53
54	0.0161 7686	0.0158 0824	0.0156 2623	0.0154 4575	54
55	0.0158 4139	0.0154 7337	0.0152 9171	0.0151 1160	55
56	0.0155 1797	0.0151 5056	0 0149 6925	0.0147 8951	56
57	0.0152 0598	0.0148 3918	0.0146 5821	0.0144 7885	57
58	0.0149 0481	0.0145 3863	0.0143 5801	0.0141 7902	58
59	0.0146 1392	0.0142 4836	0.0140 6809	0.0138 8949	59
60	0.0143 3280	0.0139 6787	0.0137 8795	0.0136 0972	60
61	0.0140 6096	0.0136 9666	0.0135 1709	0.0133 3925	61
62	0.0137 9796	0.0134 3428	0.0132 5508	0.0130 7762	62
63	0.0135 4337	0.0131 8033	0.0130 0148	0.0128 2441	63
64	0.0132 9681	0.0129 3440	0.0127 5591	0.0125 7923	64
65	0.0130 5789	0.0126 9612	0.0125 1800	0.0123 4170	65
66	0.0128 2627	0.0124 6515	0.0122 8739	0.0121 1148	66
67	0.0126 0163	0.0122 4116	0.0120 6367	0.0118 8824	67
68	0.0123 8366	0.0120 2383	0.0118 4680	0.0116 7168	68
69	0.0121 7206	0.0118 1289	0.0116 3622	0.0114 6149	69
70	0.0119 6657	0.0116 0805	0.0114 3175	0.0112 5742	70
71	0.0117 6693	0.0114 0906	0.0112 3313	0.0110 5919	71
72	0.0115 7289	0.0112 1567	0.0110 4011	0.0108 6657	72
73	0.0113 8422	0.0110 2766	0.0108 5247	0.0106 7933	73
74	0.0112 0070	0.0108 4481	0.0106 6999	0.0104 9724	74
75	0.0110 2214	0.0106 6690	0.0104 9246	0.0103 2011	75
76	0.0108 4832	0.0104 9375	0.0103 1968	0.0101 4773	76
77	0.0106 7908	0.0103 2517	0.0101 5147	0.0099 7992	77
78	0.0105 1423	0.0101 6099	0.0099 8766	0.0098 1651	78
79	0.0103 5360	0.0100 0103	0.0098 2808	0.0096 5733	79
80	0.0101 9704	0.0098 4514	0.0096 7256	0.0095 0222	80
81	0.0100 4439	0.0096 9316	0.0095 2096	0.0093 5102	81
82	0.0098 9552	0.0095 4496	0.0093 7314	0.0092 0360	82
83	0.0097 5028	0.0094 0040	0.0092 2895	0.0090 5982	83
84	0.0096 0855	0.0092 5935	0.0090 8828	0.0089 1954	84
85	0.0094 7021	0.0091 2168	0.0089 5098	0.0087 8266	85
86	0.0093 3513	0.0089 8727	0.0088 1696	0.0086 4903	86
87	0.0092 0320	0.0088 5602	0.0086 8608	0.0085 1857	87
88	0.0090 7431	0.0087 2781	0.0085 5826	0.0083 9114	88
89	0.0089 4837	0.0086 0254	0.0084 3337	0.0082 6667	89
90	0.0088 2527	0.0084 8013	0.0083 1134	0.0081 4503	90
91	0.0087 0493	0.0083 6047	0.0081 9205	0.0080 2615	91
92	0.0085 8724	0.0082 4346	0.0080 7542	0.0079 0993	92
93	0.0084 7213	0.0081 2903	0.0079 6137	0.0077 9629	93
94	0.0083 5950	0.0080 1709	0.0078 4982	0.0076 8514	94
95	0.0082 4930	0.0079 0757	0.0077 4067	0.0075 7641	95
96	0.0081 4143	0.0078 0038	0.0076 3387	0.0074 7001	96
97	0.0080 3583	0.0076 9547	0.0075 2933	0.0073 6588	97
98	0.0079 3242	0.0075 9275	0.0074 2700	0.0072 6395	98
99	0.0078 3115	0.0074 9215	0.0073 2679	0.0071 6415	99
100	0.0077 3194	0.0073 9363	0.0072 2865	0.0070 6641	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_{\overline{n}|}^{-1}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	8.237 1086	8.227 6888	8.222 9575	8.218 2124	51
52	8.227 5461	8.217 9296	8.213 0993	8.208 2542	52
53	8.218 1432	8.208 3299	8.203 4002	8.198 4552	53
54	8.208 8943	8.198 8835	8.193 8543	8.188 8092	54
55	8.199 7933	8.189 5850	8.184 4560	8.179 3105	55
56	8.190 8350	8.180 4288	8.175 1999	8.169 9538	56
57	8.182 0144	8.171 4099	8.166 0809	8.160 7341	57
58	8.173 3265	8.162 5235	8.157 0943	8.151 6464	58
59	8.165 7669	8.153 7650	8.148 2353	8.142 6863	59
60	8.156 3311	8.145 1300	8.139 4997	8.133 8495	60
61	8.148 0151	8.136 6145	8.130 8833	8.125 1316	61
62	8.139 8150	8.128 2145	8.122 3824	8.116 5289	62
63	8.131 7269	8.119 9263	8.113 9929	8.108 0376	63
64	8.123 7473	8.111 7463	8.105 7115	8.099 6542	64
65	8.115 8729	8.103 6711	8.097 5349	8.091 3752	65
66	8.108 1005	8.095 6975	8.089 4596	8.083 1975	66
67	8.100 4268	8.087 8224	8.081 4826	8.075 1178	67
68	8.092 8490	8.080 0428	8.073 6010	8.067 1334	68
69	8.085 3643	8.072 3560	8.065 8119	8.059 2413	69
70	8.077 9699	8.064 7592	8.058 1127	8.051 4388	70
71	8.071 6631	8.057 2498	8.050 5007	8.043 7235	71
72	8.063 4417	8.049 8254	8.042 9735	8.036 0927	72
73	8.056 3032	8.042 4835	8.035 5286	8.028 5440	73
74	8.049 2453	8.035 2219	8.028 1640	8.021 0753	74
75	8.042 2658	8.028 0384	8.020 8772	8.013 6844	75
76	8.035 3627	8.020 9309	8.013 6663	8.006 3691	76
77	8.028 5338	8.013 8974	8.006 5291	7.999 1274	77
78	8.021 7773	8.006 9359	7.999 4638	7.991 9574	78
79	8.015 0912	8.000 0446	7.992 4685	7.984 8572	79
80	8.008 4740	7.993 2217	7.985 5414	7.977 8251	80
81	8.001 9236	7.986 4655	7.978 6808	7.970 8591	81
82	7.995 4386	7.979 7743	7.971 8850	7.963 9579	82
83	7.989 0173	7.973 1464	7.965 1525	7.957 1196	83
84	7.982 6580	7.966 5803	7.958 4815	7.950 3428	84
85	7.976 3595	7.960 0747	7.951 8708	7.943 6260	85
86	7.970 1202	7.953 6278	7.945 3187	7.936 9678	86
87	7.963 9388	7.947 2386	7.938 8240	7.930 3667	87
88	7.957 8138	7.940 9055	7.932 3854	7.923 8214	88
89	7.951 7441	7.934 6272	7.926 0014	7.917 3306	89
90	7.945 7282	7.928 4026	7.919 6708	7.910 8931	90
91	7.939 7651	7.922 2304	7.913 3925	7.904 5076	91
92	7.933 8535	7.916 1095	7.907 1652	7.898 1730	92
93	7.927 9924	7.910 0387	7.900 9879	7.891 8882	93
94	7.922 1806	7.904 0169	7.894 8595	7.885 6520	94
95	7.916 4170	7.898 0429	7.888 7788	7.879 4634	95
96	7.910 7007	7.892 1160	7.882 7448	7.873 3213	96
97	7.905 0306	7.886 2349	7.876 7565	7.867 2249	97
98	7.899 4058	7.880 3988	7.870 8131	7.861 1730	98
99	7.893 8254	7.874 6067	7.864 9136	7.855 1647	99
100	7.888 2883	7.868 8578	7.859 0569	7.849 1992	100

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	0.0076 3473	0.0072 9711	0.0071 3251	0.0069 7069	101
102	0.0075 3947	0.0072 0254	0.0070 3832	0.0068 7690	102
103	0.0074 4611	0.0071 0986	0.0069 4602	0.0067 8501	103
104	0.0073 5457	0.0070 1901	0.0068 5555	0.0066 9495	104
105	0.0072 6481	0.0069 2994	0.0067 6687	0.0066 0668	105
106	0.0071 7679	0.0068 4261	0.0066 7992	0.0065 2013	106
107	0.0070 9045	0.0067 5696	0.0065 9465	0.0064 3527	107
108	0.0070 0575	0.0066 7294	0.0065 1102	0.0063 5205	108
109	0.0069 2264	0.0065 9052	0.0064 2897	0.0062 7042	109
110	0.0068 4107	0.0065 0962	0.0063 4848	0.0061 9033	110
111	0.0067 6102	0.0064 3028	0.0062 6950	0.0061 1175	111
112	0.0066 8242	0.0063 5237	0.0061 9198	0.0060 3464	112
113	0.0066 0526	0.0062 7590	0.0061 1588	0.0059 5895	113
114	0.0065 2948	0.0062 0081	0.0060 4118	0.0058 8465	114
115	0.0064 5506	0.0061 2708	0.0059 6783	0.0058 1171	115
116	0.0063 8195	0.0060 5466	0.0058 9579	0.0057 4008	116
117	0.0063 1013	0.0059 8353	0.0058 2504	0.0056 6974	117
118	0.0062 3956	0.0059 1365	0.0057 5555	0.0056 0065	118
119	0.0061 7021	0.0058 4499	0.0056 8727	0.0055 3278	119
120	0.0061 0205	0.0057 7751	0.0056 2018	0.0054 6609	120
121	0.0060 3505	0.0057 1120	0.0055 5425	0.0054 0057	121
122	0.0059 6918	0.0056 4602	0.0054 8945	0.0053 3618	122
123	0.0059 0441	0.0055 8194	0.0054 2575	0.0052 7289	123
124	0.0058 4072	0.0055 1894	0.0053 6314	0.0052 1067	124
125	0.0057 7808	0.0054 5700	0.0053 0157	0.0051 4951	125
126	0.0057 1647	0.0053 9607	0.0052 4102	0.0050 8937	126
127	0.0056 5586	0.0053 3615	0.0051 8148	0.0050 3024	127
128	0.0055 9623	0.0052 7721	0.0051 2292	0.0049 7208	128
129	0.0055 3755	0.0052 1922	0.0050 6531	0.0049 1488	129
130	0.0054 7981	0.0051 6216	0.0050 0864	0.0048 5861	130
131	0.0054 2298	0.0051 0602	0.0049 5288	0.0048 0325	131
132	0.0053 6704	0.0050 5077	0.0048 9800	0.0047 4878	132
133	0.0053 1197	0.0049 9639	0.0048 4400	0.0046 9518	133
134	0.0052 5775	0.0049 4286	0.0047 9086	0.0046 4244	134
135	0.0052 0436	0.0048 9016	0.0047 3854	0.0045 9052	135
136	0.0051 5179	0.0048 3828	0.0046 8703	0.0045 3942	136
137	0.0051 0002	0.0047 8719	0.0046 3633	0.0044 8911	137
138	0.0050 4902	0.0047 3688	0.0045 8640	0.0044 3959	138
139	0.0049 9879	0.0046 8733	0.0045 3723	0.0043 9082	139
140	0.0049 4930	0.0046 3853	0.0044 8881	0.0043 4280	140
141	0.0049 0055	0.0045 9046	0.0044 4111	0.0042 9551	141
142	0.0048 5250	0.0045 4311	0.0043 9414	0.0042 4893	142
143	0.0048 0516	0.0044 9645	0.0043 4786	0.0042 0305	143
144	0.0047 5850	0.0044 5048	0.0043 0226	0.0041 5786	144
145	0.0047 1252	0.0044 0518	0.0042 5734	0.0041 1333	145
146	0.0046 6719	0.0043 6053	0.0042 1307	0.0040 6947	146
147	0.0046 2250	0.0043 1653	0.0041 6944	0.0040 2624	147
148	0.0045 7844	0.0042 7316	0.0041 2645	0.0039 8364	148
149	0.0045 3500	0.0042 3040	0.0040 8407	0.0039 4166	149
150	0.0044 9217	0.0041 8825	0.0040 4230	0.0039 0029	150

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	7.882 7938	7.863 1511	7.853 2423	7.843 2756	101
102	7.877 3410	7.857 4857	7.847 4689	7.837 3930	102
103	7.871 9290	7.851 8609	7.841 7359	7.831 5506	103
104	7.866 5571	7.846 2758	7.836 0424	7.825 7475	104
105	7.861 2245	7.840 7297	7.830 3877	7.819 9831	105
106	7.855 9303	7.835 2217	7.824 7710	7.814 2565	106
107	7.850 6739	7.829 7512	7.819 1916	7.808 5669	107
108	7.845 4546	7.824 3175	7.813 6488	7.802 9138	108
109	7.840 2717	7.818 9197	7.808 1418	7.797 2963	109
110	7.835 1243	7.813 5573	7.802 6700	7.791 7138	110
111	7.830 0120	7.808 2297	7.797 2327	7.786 1657	111
112	7.824 9341	7.802 9360	7.791 8294	7.780 6513	112
113	7.819 8899	7.797 6759	7.786 4592	7.775 1699	113
114	7.814 8788	7.792 4484	7.781 1217	7.769 7210	114
115	7.809 9002	7.787 2533	7.775 8162	7.764 3039	115
116	7.804 9536	7.782 0897	7.770 5422	7.758 9182	116
117	7.800 0384	7.776 9574	7.765 2992	7.753 5632	117
118	7.795 1541	7.771 8554	7.760 0865	7.748 2383	118
119	7.790 3000	7.766 7835	7.754 9035	7.742 9431	119
120	7.785 4757	7.761 7410	7.749 7500	7.737 6770	120
121	7.780 6808	7.756 7276	7.744 6252	7.732 4395	121
122	7.775 9145	7.751 7426	7.739 5287	7.727 2301	122
123	7.771 1767	7.746 7855	7.734 4600	7.722 0485	123
124	7.766 4666	7.741 8560	7.729 4187	7.716 8939	124
125	7.761 7838	7.736 9536	7.724 4042	7.711 7660	125
126	7.757 1280	7.732 0777	7.719 4162	7.706 6643	126
127	7.752 4987	7.727 2280	7.714 4542	7.701 5885	127
128	7.747 8954	7.722 4041	7.709 5177	7.696 5381	128
129	7.743 3177	7.717 6055	7.704 6064	7.691 5127	129
130	7.738 7652	7.712 8317	7.699 7198	7.686 5118	130
131	7.734 2376	7.708 0825	7.694 8576	7.681 5350	131
132	7.729 7344	7.703 3573	7.690 0192	7.676 5821	132
133	7.725 2552	7.698 6560	7.685 2045	7.671 6525	133
134	7.720 7997	7.693 9780	7.680 4129	7.666 7459	134
135	7.716 3675	7.689 3230	7.675 6442	7.661 8620	135
136	7.711 9583	7.684 6906	7.670 8981	7.657 0004	136
137	7.707 5717	7.680 0806	7.666 1739	7.652 1607	137
138	7.703 2073	7.675 4925	7.661 4716	7.647 3426	138
139	7.698 8648	7.670 9260	7.656 7907	7.642 5458	139
140	7.694 5439	7.666 3808	7.652 1310	7.637 7700	140
141	7.690 2444	7.661 8566	7.647 4921	7.633 0147	141
142	7.685 9658	7.657 3530	7.642 8736	7.628 2798	142
143	7.681 7079	7.652 8698	7.638 2754	7.623 5649	143
144	7.677 4703	7.648 4066	7.633 6969	7.618 8698	144
145	7.673 2527	7.643 9632	7.629 1382	7.614 1940	145
146	7.669 0550	7.639 5393	7.624 5987	7.609 5373	146
147	7.664 8767	7.635 1346	7.620 0784	7.604 8996	147
148	7.660 7178	7.630 7487	7.615 5766	7.600 2804	148
149	7.656 5777	7.626 3816	7.611 0934	7.595 6794	149
150	7.652 4563	7.622 0328	7.606 6284	7.591 0966	150

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	0.0044 4993	0.0041 4670	0.0040 0112	0.0038 5950	151
152	0.0044 0827	0.0041 0572	0.0039 6052	0.0038 1930	152
153	0.0043 6719	0.0040 6532	0.0039 2049	0.0037 7967	153
154	0.0043 2666	0.0040 2547	0.0038 8102	0.0037 4059	154
155	0.0042 8668	0.0039 8617	0.0038 4209	0.0037 0206	155
156	0.0042 4723	0.0039 4741	0.0038 0370	0.0036 6407	156
157	0.0042 0832	0.0039 0917	0.0037 6584	0.0036 2661	157
158	0.0041 6992	0.0038 7146	0.0037 2850	0.0035 8966	158
159	0.0041 3203	0.0038 3425	0.0036 9166	0.0035 5321	159
160	0.0040 9464	0.0037 9753	0.0036 5532	0.0035 1727	160
161	0.0040 5774	0.0037 6131	0.0036 1947	0.0034 8181	161
162	0.0040 2131	0.0037 2556	0.0035 8410	0.0034 4682	162
163	0.0039 8536	0.0036 9029	0.0035 4919	0.0034 1232	163
164	0.0039 4987	0.0036 5547	0.0035 1475	0.0033 7827	164
165	0.0039 1483	0.0036 2111	0.0034 8076	0.0033 4467	165
166	0.0038 8024	0.0035 8720	0.0034 4722	0.0033 1152	166
167	0.0038 4608	0.0035 5372	0.0034 1411	0.0032 7880	167
168	0.0038 1236	0.0035 2067	0.0033 8143	0.0032 4651	168
169	0.0037 7906	0.0034 8804	0.0033 4918	0.0032 1465	169
170	0.0037 4617	0.0034 5583	0.0033 1733	0.0031 8319	170
171	0.0037 1369	0.0034 2403	0.0032 8589	0.0031 5215	171
172	0.0036 8161	0.0033 9262	0.0032 5486	0.0031 2150	172
173	0.0036 4992	0.0033 6160	0.0032 2421	0.0030 9124	173
174	0.0036 1862	0.0033 3098	0.0031 9395	0.0030 6137	174
175	0.0035 8770	0.0033 0073	0.0031 6407	0.0030 3187	175
176	0.0035 5715	0.0032 7085	0.0031 3456	0.0030 0275	176
177	0.0035 2697	0.0032 4134	0.0031 0542	0.0029 7399	177
178	0.0034 9715	0.0032 1219	0.0030 7664	0.0029 4560	178
179	0.0034 6769	0.0031 8340	0.0030 4821	0.0029 1755	179
180	0.0034 3857	0.0031 5495	0.0030 2012	0.0028 8985	180
181	0.0034 0979	0.0031 2684	0.0029 9238	0.0028 6250	181
182	0.0033 8136	0.0030 9908	0.0029 6498	0.0028 3548	182
183	0.0033 5325	0.0030 7164	0.0029 3791	0.0028 0879	183
184	0.0033 2547	0.0030 4453	0.0029 1116	0.0027 8242	184
185	0.0032 9802	0.0030 1774	0.0028 8473	0.0027 5638	185
186	0.0032 7087	0.0029 9126	0.0028 5862	0.0027 3065	186
187	0.0032 4404	0.0029 6509	0.0028 3282	0.0027 0523	187
188	0.0032 1752	0.0029 3923	0.0028 0732	0.0026 8011	188
189	0.0031 9129	0.0029 1367	0.0027 8212	0.0026 5529	189
190	0.0031 6537	0.0028 8841	0.0027 5722	0.0026 3077	190
191	0.0031 3973	0.0028 6343	0.0027 3260	0.0026 0653	191
192	0.0031 1438	0.0028 3875	0.0027 0828	0.0025 8258	192
193	0.0030 8931	0.0028 1434	0.0026 8423	0.0025 5892	193
194	0.0030 6452	0.0027 9021	0.0026 6064	0.0025 3552	194
195	0.0030 4000	0.0027 6636	0.0026 3696	0.0025 1240	195
196	0.0030 1576	0.0027 4277	0.0026 1374	0.0024 8955	196
197	0.0029 9178	0.0027 1945	0.0025 9077	0.0024 6696	197
198	0.0029 6806	0.0026 9639	0.0025 6807	0.0024 4464	198
199	0.0029 4459	0.0026 7358	0.0025 4562	0.0024 2256	199
200	0.0029 2138	0.0026 5103	0.0025 2343	0.0024 0074	200

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	7.648 3534	7.617 7022	7.602 1813	7.586 5315	151
152	7.644 2686	7.613 3894	7.597 7520	7.581 9839	152
153	7.640 2017	7.609 0942	7.593 3401	7.577 4536	153
154	7.636 1525	7.604 8164	7.588 9454	7.572 9404	154
155	7.632 1208	7.600 5558	7.584 5677	7.568 4440	155
156	7.628 1062	7.596 3120	7.580 2067	7.563 9640	156
157	7.624 1087	7.592 0850	7.575 8622	7.559 5004	157
158	7.620 1278	7.587 8743	7.571 5341	7.555 0530	158
159	7.616 1636	7.583 6799	7.567 2220	7.550 6214	159
160	7.612 2156	7.579 5015	7.562 9257	7.546 2155	160
161	7.608 2837	7.575 3389	7.558 6450	7.541 8050	161
162	7.604 3676	7.571 1918	7.554 3797	7.537 4198	162
163	7.600 4673	7.567 0602	7.550 1298	7.533 0497	163
164	7.596 5825	7.562 9437	7.545 8947	7.528 6943	164
165	7.592 7129	7.558 8422	7.541 6745	7.524 3536	165
166	7.588 8584	7.554 7555	7.537 4689	7.520 0274	166
167	7.585 0187	7.550 6833	7.533 2777	7.515 7154	167
168	7.581 1938	7.546 6256	7.529 1008	7.511 4175	168
169	7.577 3834	7.542 5821	7.524 9380	7.507 1334	169
170	7.573 5873	7.538 5526	7.520 7890	7.502 8630	170
171	7.569 8055	7.534 5370	7.516 6537	7.498 6063	171
172	7.566 0376	7.530 5351	7.512 5319	7.494 3628	172
173	7.562 2834	7.526 5466	7.508 4235	7.490 1325	173
174	7.558 5430	7.522 5716	7.504 3283	7.485 9152	174
175	7.554 8160	7.518 6097	7.500 2461	7.481 7108	175
176	7.551 1024	7.514 6608	7.496 1767	7.477 5191	176
177	7.547 4018	7.510 7249	7.492 1201	7.473 3399	177
178	7.543 7143	7.506 8015	7.488 0760	7.469 1731	178
179	7.540 0397	7.502 8908	7.484 0442	7.465 0185	179
180	7.536 3776	7.498 9923	7.480 0247	7.460 8759	180
181	7.532 7282	7.495 1063	7.476 0173	7.456 7453	181
182	7.529 0911	7.491 2323	7.472 0218	7.452 6264	182
183	7.525 4663	7.487 3702	7.468 0382	7.448 5192	183
184	7.521 8536	7.483 5199	7.464 0661	7.444 4234	184
185	7.518 2529	7.479 6813	7.460 1056	7.440 3390	185
186	7.514 6639	7.475 8542	7.456 1564	7.436 2658	186
187	7.511 0867	7.472 0386	7.452 2185	7.432 2036	187
188	7.507 5211	7.468 2342	7.448 2917	7.428 1525	188
189	7.503 9669	7.464 4410	7.444 3759	7.424 1121	189
190	7.500 4239	7.460 6587	7.440 4709	7.420 0823	190
191	7.496 8922	7.456 8873	7.436 5765	7.416 0631	191
192	7.493 3714	7.453 1266	7.432 6929	7.412 0544	192
193	7.489 8616	7.449 3766	7.428 8197	7.408 0560	193
194	7.486 3626	7.445 6372	7.424 9568	7.404 0677	194
195	7.482 8743	7.441 9081	7.421 1042	7.400 0895	195
196	7.479 3965	7.438 1892	7.417 2617	7.396 1213	196
197	7.475 9292	7.434 4805	7.413 4292	7.392 1629	197
198	7.472 4722	7.430 7819	7.409 6066	7.388 2142	198
199	7.469 0254	7.427 0933	7.405 7938	7.384 2751	199
200	7.465 5888	7.423 4144	7.402 9905	7.380 3456	200

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	¾%	⅞%	1%	1⅛%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4981 3200	0.4978 2203	0.4975 1244	0.4972 0323	2
3	0.3308 4579	0.3304 3361	0.3300 2211	0.3296 1130	3
4	0.2472 0501	0.2467 4257	0.2462 8109	0.2458 2058	4
5	0.1970 2242	0.1965 3049	0.1960 3980	0.1955 5034	5
6	0.1635 6891	0.1630 5789	0.1625 4837	0.1620 4034	6
7	0.1396 7488	0.1391 5070	0.1386 2828	0.1381 0762	7
8	0.1217 5552	0.1212 2190	0.1206 9029	0.1201 6071	8
9	0.1078 1929	0.1072 7868	0.1067 4036	0.1062 0432	9
10	0.0966 7123	0.0961 2538	0.0955 8208	0.0950 4131	10
11	0.0875 5094	0.0870 0111	0.0864 5408	0.0859 0984	11
12	0.0799 5148	0.0793 9860	0.0788 4879	0.0783 0203	12
13	0.0735 2188	0.0729 6669	0.0724 1482	0.0718 6626	13
14	0.0680 1146	0.0674 5453	0.0669 0117	0.0663 5138	14
15	0.0632 3639	0.0626 7817	0.0621 2378	0.0615 7321	15
16	0.0590 5879	0.0584 9965	0.0579 4460	0.0573 9363	16
17	0.0553 7321	0.0548 1346	0.0542 5806	0.0537 0698	17
18	0.0520 9766	0.0515 3756	0.0509 8205	0.0504 3113	18
19	0.0491 6740	0.0486 0715	0.0480 5175	0.0475 0120	19
20	0.0465 3063	0.0459 7042	0.0454 1531	0.0448 6531	20
21	0.0441 4543	0.0435 8541	0.0430 3075	0.0424 8145	21
22	0.0419 7748	0.0414 1779	0.0408 6372	0.0403 1525	22
23	0.0399 9846	0.0394 3921	0.0388 8584	0.0383 3833	23
24	0.0381 8474	0.0376 2604	0.0370 7347	0.0365 2701	24
25	0.0365 1650	0.0359 5843	0.0354 0675	0.0348 6144	25
26	0.0349 7693	0.0344 1959	0.0338 6888	0.0333 2479	26
27	0.0335 5176	0.0329 9520	0.0324 4553	0.0319 0273	27
28	0.0322 2871	0.0316 7300	0.0311 2444	0.0305 8299	28
29	0.0309 9723	0.0304 4243	0.0298 9502	0.0293 5498	29
30	0.0298 4816	0.0292 9434	0.0287 4811	0.0282 0953	30
[31	0.0287 7352	0.0282 2068	0.0276 7573	0.0271 3866	31
32	0.0277 6634	0.0272 1454	0.0266 7089	0.0261 3535	32
33	0.0268 2048	0.0262 6976	0.0257 2744	0.0251 9349	33
34	0.0259 3053	0.0253 8092	0.0248 3997	0.0243 0763	34
35	0.0250 9170	0.0245 4324	0.0240 0368	0.0234 7299	35
[36	0.0242 9973	0.0237 5244	0.0232 1431	0.0226 8529	36
37	0.0235 5082	0.0230 0473	0.0224 6805	0.0219 4072	37
38	0.0228 4157	0.0222 9671	0.0217 6150	0.0212 3589	38
39	0.0221 6893	0.0216 2531	0.0210 9160	0.0205 6773	39
40	0.0215 3016	0.0209 8780	0.0204 5560	0.0199 3349	40
41	0.0209 2276	0.0203 8169	0.0198 5102	0.0193 3069	41
42	0.0203 4452	0.0198 0475	0.0192 7563	0.0187 5709	42
43	0.0197 9338	0.0192 5493	0.0187 2737	0.0182 1064	43
44	0.0192 6751	0.0187 3039	0.0182 0441	0.0176 8949	44
45	0.0187 6521	0.0182 2943	0.0177 0505	0.0171 9197	45
46	0.0182 8495	0.0177 5053	0.0172 2775	0.0167 1652	46
47	0.0178 2532	0.0172 9228	0.0167 7111	0.0162 6173	47
48	0.0173 8504	0.0168 5338	0.0163 3384	0.0158 2632	48
49	0.0169 6292	0.0164 3265	0.0159 1474	0.0154 0910	49
50	0.0165 5787	0.0160 2900	0.0155 1273	0.0150 0898	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.697 3444	9.697 0742	9.696 8039	9.696 5339	2
3	9.519 6256	9.519 0842	9.518 5430	9.518 0021	3
4	9.393 0573	9.392 2441	9.391 4311	9.390 6193	4
5	9.294 5156	9.293 4299	9.292 3443	9.291 2586	5
6	9.213 7008	9.212 3418	9.210 9827	9.209 6231	6
7	9.145 1183	9.143 4854	9.141 8519	9.140 2176	7
8	9.085 4887	9.083 5811	9.081 6723	9.079 7625	8
9	9.032 6964	9.030 5134	9.028 3287	9.026 1422	9
10	8.985 2973	8.982 8380	8.980 3766	8.977 9124	10
11	8.942 2608	8.939 5248	8.936 7855	8.934 0429	11
12	8.902 8265	8.899 8128	8.896 7951	8.893 7730	12
13	8.866 4166	8.863 1247	8.859 8275	8.856 5250	13
14	8.832 5821	8.829 0111	8.825 4338	8.821 8499	14
15	8.800 9671	8.797 1163	8.793 2578	8.789 3918	15
16	8.771 2845	8.767 1533	8.763 0130	8.758 8637	16
17	8.743 2997	8.738 8872	8.734 4644	8.730 0306	17
18	8.716 8183	8.712 1238	8.707 4173	8.702 6987	18
19	8.691 6773	8.686 7002	8.681 7092	8.676 7046	19
20	8.667 7390	8.662 4784	8.657 2024	8.651 9107	20
21	8.644 8857	8.639 3411	8.633 7791	8.628 1993	21
22	8.623 0164	8.617 1869	8.611 3378	8.605 4694	22
23	8.602 0432	8.595 9282	8.589 7916	8.583 6332	23
24	8.581 8899	8.575 4885	8.569 0633	8.562 6142	24
25	8.562 4891	8.555 8007	8.549 0862	8.542 3453	25
26	8.543 7817	8.536 8056	8.529 8009	8.522 7673	26
27	8.525 7153	8.518 4508	8.511 1549	8.503 8278	27
28	8.508 2429	8.500 6893	8.493 1015	8.485 4799	28
29	8.491 3229	8.483 4792	8.475 5988	8.467 6818	29
30	8.474 9176	8.466 7833	8.458 6094	8.450 3960	30
31	8.458 9930	8.450 5675	8.442 0992	8.433 5884	31
32	8.443 5186	8.434 8009	8.426 0374	8.417 2284	32
33	8.428 4666	8.419 4560	8.410 3965	8.401 2883	33
34	8.413 8114	8.404 5074	8.395 1511	8.385 7427	34
35	8.399 5301	8.389 9319	8.380 2778	8.370 5684	35
36	8.385 6015	8.375 7083	8.365 7558	8.355 7443	36
37	8.372 0061	8.361 8173	8.351 5654	8.341 2509	37
38	8.358 7260	8.348 2408	8.337 6888	8.327 0704	38
39	8.345 7448	8.334 9624	8.324 1095	8.313 1863	39
40	8.333 0472	8.321 9669	8.310 8122	8.299 5833	40
41	8.320 6190	8.309 2403	8.297 7829	8.286 2473	41
42	8.308 4474	8.296 7693	8.285 0085	8.273 1654	42
43	8.296 5200	8.284 5420	8.272 4768	8.260 3251	43
44	8.284 8255	8.292 5467	8.260 1765	8.247 7154	44
45	8.273 3534	8.260 7732	8.248 0971	8.235 3256	45
46	8.262 0938	8.249 2115	8.236 2286	8.223 1458	46
47	8.251 0374	8.237 8523	8.224 5619	8.211 1669	47
48	8.240 1758	8.226 6870	8.213 0882	8.199 3800	48
49	8.229 5006	8.215 7076	8.201 7996	8.187 7773	49
50	8.219 0043	8.204 9063	8.190 6883	8.176 3510	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	0.0161 6888	0.0156 4142	0.0151 2680	0.0146 2494	51
52	0.0157 9503	0.0152 6899	0.0147 5603	0.0142 5606	52
53	0.0154 3546	0.0149 1084	0.0143 9956	0.0139 0149	53
54	0.0150 8938	0.0145 6619	0.0140 5658	0.0135 6043	54
55	0.0147 5605	0.0142 3430	0.0137 2637	0.0132 3213	55
56	0.0144 3478	0.0139 1449	0.0134 0824	0.0129 1592	56
57	0.0141 2496	0.0136 0611	0.0131 0156	0.0126 1116	57
58	0.0138 2597	0.0133 0858	0.0128 0573	0.0123 1726	58
59	0.0135 3727	0.0130 2135	0.0125 2020	0.0120 3366	59
60	0.0132 5836	0.0127 4390	0.0122 4445	0.0117 5985	60
61	0.0129 8873	0.0124 7575	0.0119 7800	0.0114 9534	61
62	0.0127 2795	0.0122 1644	0.0117 2041	0.0111 3969	62
63	0.0124 7560	0.0119 6557	0.0114 7125	0.0109 9247	63
64	0.0122 3127	0.0117 2273	0.0112 3013	0.0107 5329	64
65	0.0119 9460	0.0114 8754	0.0109 9667	0.0105 2178	65
66	0.0117 6524	0.0112 5968	0.0107 7052	0.0102 9758	66
67	0.0115 4286	0.0110 3879	0.0105 5136	0.0100 8037	67
68	0.0113 2716	0.0108 2459	0.0103 3889	0.0098 6985	68
69	0.0111 1785	0.0106 1677	0.0101 3280	0.0096 6571	69
70	0.0109 1464	0.0104 1506	0.0099 3282	0.0094 6769	70
71	0.0107 1728	0.0102 1921	0.0097 3870	0.0092 7552	71
72	0.0105 2554	0.0100 2897	0.0095 5019	0.0090 8896	72
73	0.0103 3917	0.0098 4411	0.0093 6706	0.0089 0779	73
74	0.0101 5796	0.0096 6441	0.0091 8910	0.0087 3177	74
75	0.0099 8170	0.0094 8966	0.0090 1609	0.0085 6072	75
76	0.0098 1020	0.0093 1967	0.0088 4784	0.0083 9442	76
77	0.0096 4328	0.0091 5426	0.0086 8416	0.0082 3269	77
78	0.0094 8074	0.0089 9324	0.0085 2488	0.0080 7536	78
79	0.0093 2244	0.0088 3645	0.0083 6983	0.0079 2226	79
80	0.0091 6821	0.0086 8374	0.0082 1885	0.0077 7323	80
81	0.0090 1790	0.0085 3494	0.0080 7179	0.0076 2812	81
82	0.0088 7136	0.0083 8992	0.0079 2851	0.0074 8678	82
83	0.0087 2847	0.0082 4854	0.0077 8887	0.0073 4908	83
84	0.0085 8908	0.0081 1067	0.0076 5273	0.0072 1489	84
85	0.0084 5308	0.0079 7619	0.0075 1998	0.0070 8409	85
86	0.0083 2034	0.0078 4497	0 0073 9050	0.0069 5654	86
87	0.0081 9076	0.0077 1691	0.0072 6417	0.0068 3215	87
88	0.0080 6423	0.0075 9190	0.0071 4089	0.0067 1081	88
89	0.0079 4064	0.0074 6982	0.0070 2056	0.0065 9240	89
90	0.0078 1989	0.0073 5060	0.0069 0306	0.0064 7684	90
91	0.0077 0190	0.0072 3413	0.0067 8832	0.0063 6403	91
92	0.0075 8657	0.0071 2031	0.0066 7624	0.0062 5387	92
93	0.0074 7382	0.0070 0908	0.0065 6673	0.0061 4629	93
94	0.0073 6356	0.0069 0033	0.0064 5971	0.0060 4119	94
95	0.0072 5571	0.0067 9401	0.0063 5511	0.0059 3851	95
96	0.0071 5020	0.0066 9002	0.0062 5284	0.0058 3816	96
97	0.0070 4696	0.0065 8829	0.0061 5284	0.0057 4007	97
98	0.0069 4592	0.0064 8877	0.0060 5503	0.0056 4418	98
99	0.0068 4701	0.0063 9137	0.0059 5936	0.0055 5041	99
100	0.0067 5017	0.0062 9604	0.0058 6574	0.0054 5870	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{\overline{n}|}_{1}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	8.208 6799	8.194 2761	8.179 7473	8.165 0941	51
52	8.198 5203	8.183 8101	8.168 9697	8.153 9997	52
53	8.188 5195	8.173 5022	8.158 3492	8.143 0615	53
54	8.178 6712	8.163 3461	8.147 8797	8.132 2734	54
55	8.168 9700	8.153 3362	8.137 5558	8.121 6298	55
56	8.159 4103	8.143 4672	8.127 3720	8.111 1255	56
57	8.149 9871	8.133 7341	8.117 3230	8.100 7551	57
58	8.140 6956	8.124 1319	8.107 4043	8.090 5141	58
59	8.131 5312	8.114 6560	8.097 6112	8.080 3977	59
60	8.122 4896	8.105 3024	8.087 9392	8.070 4017	60
61	8.113 5667	8.096 0666	8.078 3844	8.060 5218	61
62	8.104 7585	8.086 9449	8.068 9430	8.050 7543	62
63	8.096 0613	8.077 9334	8.059 6108	8.041 0954	63
64	8.087 4715	8.069 0286	8.050 3847	8.031 5415	64
65	8.078 9858	8.060 2272	8.041 2611	8.022 0892	65
66	8.070 6008	8.051 5259	8.032 2368	8.012 7352	66
67	8.062 3136	8.042 9216	8.023 3086	8.003 4767	67
68	8.054 1211	8.034 4114	8.014 4738	7.994 3104	68
69	8.046 0206	8.025 9924	8.005 7294	7.985 2337	69
70	8.038 0094	8.017 6619	7.997 0728	7.976 2438	70
71	8.030 0848	7.009 4174	7.988 5010	7.967 3382	71
72	8.022 2443	7.001 2563	7.980 0123	7.958 5143	72
73	8.014 4856	7.993 1764	7.791 6036	7.949 7699	73
74	8.006 8064	7.985 1752	7.963 2730	7.941 1025	74
75	7.999 2046	7.977 2507	7.955 0182	7.932 5101	75
76	7.991 6780	7.969 4007	7.946 8371	7.923 9905	76
77	7.984 2246	7.961 6232	7.938 7278	7.915 5418	77
78	7.976 8425	7.953 9162	7.930 6883	7.907 1619	78
79	7.969 5297	7.946 2780	7.922 7164	7.898 8490	79
80	7.962 2846	7.938 7067	7.914 8112	7.890 6015	80
81	7.955 1054	7.931 2005	7.906 9700	7.882 4174	81
82	7.947 9903	7.923 7579	7.899 1916	7.874 2952	82
83	7.940 9379	7.916 3772	7.891 4743	7.866 2332	83
84	7.933 9466	7.909 0569	7.883 8165	7.858 2299	84
85	7.927 0148	7.901 7955	7.876 2170	7.850 2839	85
86	7.920 1412	7.894 5914	7.868 6740	7.842 3935	86
87	7.913 3242	7.887 4435	7.861 1863	7.834 5576	87
88	7.906 5627	7.880 3502	7.853 7526	7.826 7748	88
89	7.899 8553	7.873 3104	7.846 3714	7.819 0437	89
90	7.893 2008	7.866 3228	7.839 0416	7.811 3632	90
91	7.886 5979	7.859 3861	7.831 7622	7.803 7320	91
92	7.880 0454	7.852 4992	7.824 5317	7.796 1489	92
93	7.873 5424	7.845 6608	7.817 3489	7.788 6128	93
94	7.867 0875	7.838 8702	7.810 2131	7.781 1227	94
95	7.860 6799	7.832 1259	7.803 1229	7.773 6774	95
96	7.854 3184	7.825 4272	7.796 0774	7.766 2760	96
97	7.848 0021	7.818 7729	7.789 0756	7.758 9174	97
98	7.841 7299	7.812 1622	7.782 1167	7.751 6006	98
99	7.835 5010	7.805 5939	7.775 1995	7.744 3249	99
100	7.829 3144	7.799 0674	7.768 3231	7.737 0891	100

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	¾%	⅞%	1%	1⅛%	n
101	0.0066 5533	0.0062 0271	0.0057 7413	0.0053 6899	101
102	0.0065 6243	0.0061 1133	0.0056 8446	0.0052 8122	102
103	0.0064 7143	0.0060 2184	0.0055 9668	0.0051 9534	103
104	0.0063 8226	0.0059 3418	0.0055 1073	0.0051 1128	104
105	0.0062 9487	0.0058 4830	0.0054 2656	0.0050 2900	105
106	0.0062 0922	0.0057 6415	0.0053 4412	0.0049 4844	106
107	0.0061 2524	0.0056 8169	0.0052 6336	0.0048 6956	107
108	0.0060 4291	0.0056 0086	0.0051 8423	0.0047 9231	108
109	0.0059 6217	0.0055 2162	0.0051 0669	0.0047 1665	109
110	0.0058 8296	0.0054 4393	0.0050 3069	0.0046 4252	110
111	0.0058 0527	0.0053 6774	0.0049 5620	0.0045 6990	111
112	0.0057 2905	0.0052 9301	0.0048 8317	0.0044 9873	112
113	0.0056 5425	0.0052 1971	0.0048 1156	0.0044 2898	113
114	0.0055 8084	0.0051 4780	0.0047 4133	0.0043 6061	114
115	0.0055 0878	0.0050 7724	0.0046 7245	0.0042 9358	115
116	0.0054 3803	0.0050 0799	0.0046 0488	0.0042 2786	116
117	0.0053 6857	0.0049 4003	0.0045 3860	0.0041 6342	117
118	0.0053 0037	0.0048 7331	0.0044 7356	0.0041 0022	118
119	0.0052 3338	0.0048 0781	0.0044 0973	0.0040 3824	119
120	0.0051 6758	0.0047 4350	0.0043 4709	0.0039 7743	120
121	0.0051 0294	0.0046 8034	0.0042 8561	0.0039 1777	121
122	0.0050 3942	0.0046 1832	0.0042 2525	0.0038 5924	122
123	0.0049 7702	0.0045 5740	0.0041 6599	0.0038 0179	123
124	0.0049 1568	0.0044 9754	0.0041 0780	0.0037 4542	124
125	0.0048 5540	0.0044 3874	0.0040 5065	0.0036 9008	125
126	0.0047 9614	0.0043 8096	0.0039 9452	0.0036 3576	126
127	0.0047 3788	0.0043 2418	0.0039 3939	0.0035 8244	127
128	0.0046 8060	0.0042 6838	0 0038 8524	0.0035 3008	128
129	0.0046 2428	0.0042 1352	0.0038 3203	0.0034 7866	129
130	0.0045 6888	0.0041 5960	0.0037 7975	0.0034 2817	130
131	0.0045 1440	0.0041 0659	0.0037 2837	0.0033 7858	131
132	0.0044 6080	0.0040 5446	0.0036 7788	0.0033 2987	132
133	0.0044 0808	0.0040 0320	0.0036 2825	0.0032 8202	133
134	0.0043 5621	0.0039 5279	0.0035 7947	0.0032 3501	134
135	0.0043 0516	0.0039 0321	0.0035 3151	0.0031 8882	135
136	0.0042 5493	0.0038 5444	0.0034 8437	0.0031 4343	136
137	0.0042 0550	0.0038 0646	0.0034 3801	0.0030 9883	137
138	0.0041 5684	0.0037 5926	0.0033 9242	0.0030 5499	138
139	0.0041 0894	0.0037 1281	0.0033 4759	0.0030 1190	139
140	0.0040 6179	0.0036 6711	0.0033 0349	0.0029 6955	140
141	0.0040 1536	0.0036 2213	0.0032 6012	0.0029 2792	141
142	0.0039 6965	0.0035 7787	0.0032 1746	0.0028 8699	142
143	0.0039 2464	0.0035 3430	0.0031 7549	0.0028 4674	143
144	0.0038 8031	0.0034 9141	0.0031 3419	0.0028 0717	144
145	0.0038 3664	0.0034 4918	0.0030 9356	0.0027 6826	145
146	0.0037 9364	0.0034 0761	0.0030 5358	0.0027 2999	146
147	0.0037 5127	0.0033 6668	0.0030 1423	0.0026 9235	147
148	0.0037 0953	0.0033 2638	0.0029 7551	0.0026 5533	148
149	0.0036 6841	0.0032 8669	0.0029 3739	0.0026 1891	149
150	0.0036 2790	0.0032 4760	0.0028 9988	0.0025 8309	150

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_{\overline{n}|}^{-1}$$

n	¾%	⅞%	1%	1⅛%	n
101	7.823 1693	7.792 5817	7.761 4867	7.729 8926	101
102	7.817 0648	7.786 1359	7.754 6896	7.722 7344	102
103	7.811 0002	7.779 7292	7.747 9308	7.715 6137	103
104	7.804 9744	7.773 3607	7.741 2095	7.708 5296	104
105	7.798 9869	7.767 0299	7.734 5250	7.701 4816	105
106	7.793 0369	7.760 7358	7.727 8765	7.694 4686	106
107	7.787 1234	7.754 4776	7.721 2632	7.687 4901	107
108	7.781 2460	7.748 2548	7.714 6845	7.680 5453	108
109	7.775 4039	7.742 0666	7.708 1396	7.673 6335	109
110	7.769 5964	7.735 9123	7.701 6279	7.666 7540	110
111	7.763 8228	7.729 7913	7.695 1487	7.659 9063	111
112	7.758 0824	7.723 7030	7.688 7015	7.653 0896	112
113	7.752 3748	7.717 6465	7.682 2854	7.646 3032	113
114	7.746 6992	7.711 6216	7.675 9000	7.639 5468	114
115	7.741 0552	7.705 6274	7.669 5446	7.632 8196	115
116	7.735 4420	7.699 6634	7.663 2188	7.626 1210	116
117	7.729 8591	7.693 7291	7.656 9219	7.619 4506	117
118	7.724 3160	7.687 8240	7.650 6533	7.612 8076	118
119	7.718 7821	7.681 9474	7.644 4125	7.606 1917	119
120	7.713 2870	7.676 0989	7.638 1991	7.599 6024	120
121	7.707 8201	7.670 2779	7.632 0125	7.593 0391	121
122	7.702 3809	7.664 4840	7.625 8523	7.586 5013	122
123	7.696 9689	7.658 7167	7.619 7179	7.579 9885	123
124	7.691 5838	7.652 9755	7.613 6088	7.573 5003	124
125	7.686 2249	7.647 2599	7.607 5247	7.567 0362	125
126	7.680 8919	7.641 5696	7.601 4651	7.560 5958	126
127	7.675 5844	7.635 9040	7.595 4294	7.554 1786	127
128	7.670 3017	7.630 2627	7.589 4174	7.547 7843	128
129	7.665 0438	7.624 6454	7.583 4287	7.541 4124	129
130	7.659 8099	7.619 0516	7.577 4626	7.535 0625	130
131	7.654 5999	7.613 4809	7.571 5190	7.528 7341	131
132	7.649 4131	7.607 9330	7.565 5974	7.522 4270	132
133	7.644 2495	7.602 4074	7.559 6974	7.516 1408	133
134	7.639 1084	7.596 9037	7.553 8187	7.509 8750	134
135	7.633 9896	7.591 4217	7.547 9610	7.503 6294	135
136	7.628 8927	7.585 9610	7.542 1237	7.497 4035	136
137	7.623 8174	7.580 5211	7.536 3066	7.491 1971	137
138	7.618 7632	7.575 1019	7.530 5094	7.485 0098	138
139	7.613 7301	7.569 7029	7.524 7318	7.478 8412	139
140	7.608 7174	7.564 3238	7.518 9733	7.472 6911	140
141	7.603 7250	7.558 9644	7.513 2338	7.466 5591	141
142	7.598 7525	7.553 6242	7.507 5129	7.460 4450	142
143	7.593 7996	7.548 3030	7.501 8102	7.454 3484	143
144	7.588 8661	7.543 0005	7.496 1255	7.448 2689	144
145	7.583 9516	7.537 7163	7.490 4586	7.442 2066	145
146	7.579 0559	7.532 4504	7.484 8090	7.436 1608	146
147	7.574 1785	7.527 2022	7.479 1766	7.430 1314	147
148	7.569 3194	7.521 9716	7.473 5610	7.424 1181	148
149	7.564 4783	7.516 7583	7.467 9621	7.418 1207	149
150	7.559 6549	7.511 5621	7.462 3795	7.412 1389	150

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	¾%	⅞%	1%	1⅛%	n
151	0.0035 8797	0.0032 0910	0.0028 6294	0.0025 4784	151
152	0.0035 4862	0.0031 7117	0.0028 2659	0.0025 1317	152
153	0.0035 0984	0.0031 3381	0.0027 9079	0.0024 7905	153
154	0.0034 7162	0.0030 9701	0.0027 5554	0.0024 4547	154
155	0.0034 3395	0.0030 6075	0.0027 2084	0.0024 1243	155
156	0.0033 9680	0.0030 2502	0.0026 8666	0.0023 7992	156
157	0.0033 6019	0.0029 8981	0.0026 5300	0.0023 4791	157
158	0.0033 2409	0.0029 5512	0.0026 1986	0.0023 1642	158
159	0.0032 8849	0.0029 2093	0.0025 8720	0.0022 8541	159
160	0.0032 5340	0.0028 8724	0.0025 5504	0.0022 5489	160
161	0.0032 1878	0.0028 5402	0.0025 2336	0.0022 2484	161
162	0.0031 8465	0.0028 2128	0.0024 9215	0.0021 9526	162
163	0.0031 5098	0.0027 8901	0.0024 6141	0.0021 6614	163
164	0.0031 1777	0.0027 5720	0.0024 3111	0.0021 3746	164
165	0.0030 8502	0.0027 2583	0.0024 0126	0.0021 0923	165
166	0.0030 5270	0.0026 9490	0.0023 7185	0.0020 8142	166
167	0.0030 2083	0.0026 6441	0.0023 4286	0.0020 5404	167
168	0.0029 8937	0.0026 3434	0.0023 1430	0.0020 2707	168
169	0.0029 5834	0.0026 0469	0.0022 8614	0.0020 0051	169
170	0.0029 2772	0.0025 7544	0.0022 5840	0.0019 7435	170
171	0.0028 9751	0.0025 4660	0.0022 3105	0.0019 4858	171
172	0.0028 6769	0.0025 1816	0.0022 0409	0.0019 2319	172
173	0.0028 3827	0.0024 9010	0.0021 7751	0.0018 9819	173
174	0.0028 0922	0.0024 6242	0.0021 5132	0.0018 7356	174
175	0.0027 8056	0.0024 3512	0.0021 2549	0.0018 4929	175
176	0.0027 5226	0.0024 0818	0.0021 0003	0.0018 2537	176
177	0.0027 2433	0.0023 8161	0.0020 7492	0.0018 0182	177
178	0.0026 9676	0.0023 5539	0.0020 5016	0.0017 7860	178
179	0.0026 6954	0.0023 2952	0.0020 2575	0.0017 5573	179
180	0.0026 4267	0.0023 0399	0.0020 0168	0.0017 3319	180
181	0.0026 1613	0.0022 7880	0.0019 7794	0.0017 1097	181
182	0.0025 8993	0.0022 5394	0.0019 5453	0.0016 8908	182
183	0.0025 6406	0.0022 2941	0.0019 3144	0.0016 6750	183
184	0.0025 3851	0.0022 0520	0.0019 0867	0.0016 4624	184
185	0.0025 1328	0.0021 8130	0.0018 8621	0.0016 2528	185
186	0.0024 8837	0.0021 5771	0.0018 6405	0.0016 0462	186
187	0.0024 6376	0.0021 3443	0.0018 4219	0.0015 8425	187
188	0.0024 3945	0.0021 1145	0.0018 2063	0.0015 6418	188
189	0.0024 1544	0.0020 8876	0.0017 9936	0.0015 4439	189
190	0.0023 9173	0.0020 6637	0.0017 7838	0.0015 2488	190
191	0.0023 6830	0.0020 4425	0.0017 5768	0.0015 0564	191
192	0.0023 4516	0.0020 2242	0.0017 3725	0.0014 8668	192
193	0.0023 2230	0.0020 0087	0.0017 1710	0.0014 6798	193
194	0.0022 9971	0.0019 7959	0.0016 9721	0.0014 4955	194
195	0.0022 7739	0.0019 5857	0.0016 7759	0.0014 3137	195
196	0.0022 5534	0.0019 3782	0.0016 5822	0.0014 1345	196
197	0.0022 3355	0.0019 1733	0.0016 3911	0.0013 9577	197
198	0.0022 1202	0.0018 9709	0.0016 2026	0.0013 7834	198
199	0.0021 9074	0.0018 7711	0.0016 0164	0.0013 6115	199
200	0.0021 6972	0.0018 5737	0.0015 8328	0.0013 4420	200

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	7.554 8487	7.506 3826	7.456 8129	7.406 1724	151
152	7.550 0598	7.501 2196	7.451 2623	7.400 2211	152
153	7.545 2878	7.496 0730	7.445 7272	7.394 2845	153
154	7.540 5324	7.490 9423	7.440 2074	7.388 3626	154
155	7.535 7934	7.485 8275	7.434 7028	7.382 4552	155
156	7.531 0706	7.480 7282	7.429 2131	7.376 5618	156
157	7.526 3638	7.475 6442	7.423 7380	7.370 6824	157
158	7.521 6727	7.470 5754	7.418 2773	7.364 8167	158
159	7.516 9972	7.465 5215	7.412 8309	7.358 9645	159
160	7.512 3368	7.460 4822	7.407 3985	7.353 1256	160
161	7.507 6916	7.455 4574	7.401 9798	7.347 2997	161
162	7.503 0613	7.450 4468	7.396 6747	7.341 4867	162
163	7.498 4456	7.445 4504	7.391 1831	7.335 6865	163
164	7.493 8444	7.440 4677	7.385 8046	7.329 8986	164
165	7.489 2575	7.435 4987	7.380 4391	7.324 1231	165
166	7.484 6846	7.430 5433	7.375 0865	7.318 3596	166
167	7.480 1256	7.425 6010	7.369 7464	7.312 6081	167
168	7.475 5804	7.420 6719	7.364 4188	7.306 8684	168
169	7.471 0487	7.415 7557	7.359 1034	7.301 1401	169
170	7.466 5302	7.410 8521	7.353 8001	7.295 4234	170
171	7.462 0250	7.405 9612	7.348 5087	7.289 7177	171
172	7.457 5327	7.401 0826	7.343 2290	7.284 0231	172
173	7.453 0533	7.396 2163	7.337 9610	7.278 3394	173
174	7.448 5865	7.391 3620	7.332 7043	7.272 6664	174
175	7.444 1321	7.386 5196	7.327 4588	7.267 0041	175
176	7.439 6901	7.381 6890	7.322 2245	7.261 3521	176
177	7.435 2603	7.376 8699	7.317 0010	7.255 7103	177
178	7.430 8425	7.372 0622	7.311 7884	7.250 0787	178
179	7.426 4365	7.367 2658	7.306 5864	7.244 4569	179
180	7.422 0423	7.362 4805	7.301 3948	7.238 8450	180
181	7.417 6596	7.357 7061	7.296 2135	7.233 2428	181
182	7.413 2883	7.352 9425	7.291 0425	7.227 6501	182
183	7.408 9282	7.348 1897	7.295 8815	7.222 0668	183
184	7.404 5792	7.343 4474	7.280 7304	7.216 4927	184
185	7.400 2414	7.338 7155	7.275 5891	7.210 9277	185
186	7.395 9142	7.333 9938	7.270 4575	7.205 3718	186
187	7.391 5978	7.329 2823	7.265 3353	7.199 8246	187
188	7.387 2921	7.324 5808	7.260 2225	7.194 2862	188
189	7.382 9968	7.319 8892	7.255 1189	7.188 7565	189
190	7.378 7117	7.315 2073	7.250 0245	7.183 2352	190
191	7.374 4369	7.310 5351	7.244 9392	7.177 7222	191
192	7.370 1722	7.305 8723	7.239 8626	7.172 2176	192
193	7.365 9174	7.301 2189	7.234 7949	7.166 7211	193
194	7.361 6724	7.296 5747	7.229 7358	7.161 2325	194
195	7.357 4372	7.291 9398	7.224 6853	7.155 7520	195
196	7.353 2116	7.287 3138	7.219 6431	7.150 2791	196
197	7.348 9954	7.282 6968	7.214 6093	7.144 8140	197
198	7.344 7886	7.278 0886	7.209 5837	7.139 3564	198
199	7.340 5911	7.273 4890	7.204 5662	7.133 9063	199
200	7.336 4027	7.268 8981	7.199 5567	7.128 4636	200

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4968 9441	0.4965 8597	0.4962 7792	0.4956 6295	2
3	0.3292 0117	0.3287 9173	0.3283 8296	0.3275 6746	3
4	0.2453 6102	0.2449 0243	0.2444 4478	0.2435 3237	4
5	0.1950 6211	0.1945 7510	0.1940 8932	0.1931 2142	5
6	0.1615 3381	0.1610 2877	0.1605 2521	0.1595 2256	6
7	0.1375 8872	0.1370 7157	0.1365 5616	0.1355 3059	7
8	0.1196 3314	0.1191 0758	0.1185 8402	0.1175 4292	8
9	0.1056 7055	0.1051 3906	0.1046 0982	0.1035 5813	9
10	0.0945 0307	0.0939 6737	0.0934 3418	0.0923 7534	10
11	0.0853 6839	0.0848 2973	0.0842 9384	0.0832 3038	11
12	0.0777 5831	0.0772 1764	0.0766 7999	0.0756 1377	12
13	0.0713 2100	0.0707 7903	0.0702 4036	0.0691 7283	13
14	0.0658 0515	0.0652 6246	0.0647 2332	0.0636 5562	14
15	0.0610 2646	0.0604 8351	0.0599 4436	0.0588 7739	15
16	0.0568 4672	0.0563 0388	0.0557 6508	0.0546 9958	16
17	0.0531 6023	0.0526 1780	0.0520 7966	0.0510 1623	17
18	0.0498 8479	0.0493 4301	0.0488 0578	0.0477 4492	18
19	0.0469 5548	0.0464 1457	0.0458 7847	0.0448 2061	19
20	0.0443 2039	0.0437 8054	0.0432 4574	0.0421 9122	20
21	0.0419 3748	0.0413 9884	0.0408 6550	0.0398 1464	21
22	0.0397 7238	0.0392 3507	0.0387 0331	0.0376 5638	22
23	0.0377 9666	0.0372 6080	0.0367 3075	0.0356 8796	23
24	0.0359 8665	0.0354 5235	0.0349 2410	0.0338 8565	24
25	0.0343 2247	0.0337 8981	0.0332 6345	0.0322 2952	25
26	0.0327 8729	0.0322 5635	0.0317 3196	0.0307 0269	26
27	0.0313 6677	0.0308 3763	0.0303 1527	0.0292 9079	27
28	0.0300 4863	0.0295 2134	0.0290 0108	0.0279 8151	28
29	0.0288 2228	0.0282 9689	0.0277 7878	0.0267 6424	29
30	0.0276 7854	0.0261 5511	0.0266 3919	0.0256 2975	30
31	0.0266 0942	0.0260 8798	0.0255 7430	0.0245 7005	31
32	0.0256 0791	0.0250 8850	0.0245 7710	0.0235 7812	32
33	0.0246 6786	0.0241 5053	0.0236 4144	0.0226 4779	33
34	0.0237 8387	0.0232 6864	0.0227 6189	0.0217 7363	34
35	0.0229 5111	0.0224 3801	0.0219 3363	0.0209 5082	35
36	0.0221 6533	0.0216 5438	0.0211 5240	0.0201 7507	36
37	0.0214 2270	0.0209 1394	0.0204 1437	0.0194 4257	37
38	0.0207 1983	0.0202 1327	0.0197 1613	0.0187 4990	38
39	0.0200 5365	0.0195 4931	0.0190 5463	0.0180 9399	39
40	0.0194 2141	0.0189 1931	0.0184 2710	0.0174 7209	40
41	0.0188 2063	0.0183 2078	0.0178 3106	0.0168 8170	41
42	0.0182 4906	0.0177 5148	0.0172 6426	0.0163 2057	42
43	0.0177 0466	0.0172 0936	0.0167 2465	0.0157 8666	43
44	0.0171 8557	0.0166 9257	0.0162 1038	0.0152 7810	44
45	0.0166 9012	0.0161 9941	0.0157 1976	0.0147 9321	45
46	0.0162 1675	0.0157 2836	0.0152 5125	0.0143 3043	46
47	0.0157 6406	0.0152 7799	0.0148 0342	0.0138 8836	47
48	0.0153 3075	0.0148 4701	0.0143 7500	0.0134 6569	48
49	0.0149 1563	0.0144 3424	0.0139 6478	0.0130 6124	49
50	0.0145 1763	0.0140 3857	0.0135 7168	0.0126 7391	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.696 2641	9.695 9945	9.695 7249	9.695 1865	2
3	9.517 4614	9.516 9209	9.516 3806	9.515 3007	3
4	9.389 8056	9.388 9931	9.388 1807	9.386 5567	4
5	9.290 1730	9.289 0873	9.288 0017	9.285 8305	5
6	9.208 2635	9.206 9035	9.205 5432	9.202 8221	6
7	9.138 5829	9.136 9474	9.135 3113	9.132 0373	7
8	9.077 8516	9.075 9394	9.074 0262	9.070 1964	8
9	9.023 9540	9.021 7641	9.019 5725	9.015 1843	9
10	8.975 4458	8.972 9770	8.970 5057	8.965 5561	10
11	8.931 2971	8.928 5481	8.925 7959	8.920 2818	11
12	8.890 7469	8.887 7165	8.884 6821	8.878 6009	12
13	8.853 2173	8.849 9047	8.846 5867	8.839 9356	13
14	8.818 2599	8.814 6634	8.811 0608	8.803 8367	14
15	8.785 5181	8.781 6370	8.777 7483	8.769 9485	15
16	8.754 7056	8.750 5383	8.746 3623	8.737 9840	16
17	8.725 5870	8.721 1326	8.716 6681	8.707 7083	17
18	8.697 9682	8.693 2257	8.688 4712	8.678 9272	18
19	8.671 6863	8.666 6544	8.661 6090	8.651 4778	19
20	8.646 6036	8.641 2811	8.635 9433	8.625 2221	20
21	8.622 6024	8.616 9882	8.611 3568	8.600 0428	21
22	8.599 5816	8.593 6744	8.587 7482	8.575 8385	22
23	8.577 4534	8.571 2523	8.565 0298	8.552 5217	23
24	8.556 1415	8.549 6450	8.543 1252	8.530 0159	24
25	8.535 5786	8.528 7858	8.521 9674	8.508 2538	25
26	8.515 7055	8.508 6153	8.501 4969	8.487 1763	26
27	8.496 4699	8.489 0809	8.481 6613	8.466 7311	27
28	8.477 8248	8.470 1360	8.462 4141	8.446 8713	28
29	8.459 7284	8.451 7388	8.443 7132	8.427 5549	29
30	8.442 1433	8.433 8515	8.425 5210	8.408 7444	30
31	8.425 0354	8.416 4404	8.407 8036	8.390 4061	31
32	8.408 3741	8.399 4747	8.390 5306	8.372 5092	32
33	8.392 1317	8.382 9266	8.373 6739	8.355 0259	33
34	8.376 2826	8.366 7709	8.357 2082	8.337 9308	34
35	8.360 8038	8.350 9844	8.341 1105	8.321 2010	35
36	8.345 6742	8.335 5458	8.325 3596	8.304 8150	36
37	8.330 8744	8.320 4358	8.309 9359	8.288 7536	37
38	8.316 3863	8.305 6365	8.294 8218	8.272 9989	38
39	8.302 1935	8.291 1314	8.280 0005	8.257 5344	39
40	8.288 2808	8.276 9052	8.265 4570	8.242 3448	40
41	8.274 6343	8.262 9440	8.251 1772	8.227 4163	41
42	8.261 2406	8.249 2345	8.237 1479	8.212 7354	42
43	8.248 0876	8.235 7647	8.223 3570	8.198 2903	43
44	8.235 1641	8.222 5231	8.209 7932	8.184 0694	44
45	8.222 4595	8.209 4993	8.196 4459	8.170 0624	45
46	8.209 9639	8.196 6834	8.183 3053	8.156 2593	46
47	8.197 6680	8.184 0662	8.170 3622	8.142 6510	47
48	8.185 5634	8.171 6390	8.157 6078	8.129 2288	48
49	8.173 6418	8.159 3937	8.145 0342	8.115 9846	49
50	8.161 8957	8.147 3228	8.132 6337	8.102 9107	50

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	0.0141 3571	0.0136 5900	0.0131 9469	0.0123 0269	51
52	0.0137 6897	0.0132 9461	0.0128 3287	0.0119 4665	52
53	0.0134 1653	0.0128 4453	0.0124 8537	0.0116 0492	53
54	0.0130 7760	0.0126 0797	0.0121 5138	0.0112 7672	54
55	0.0127 5145	0.0122 8418	0.0118 3018	0.0109 6129	55
56	0.0124 3739	0.0119 7249	0.0115 2106	0.0106 5795	56
57	0.0121 3478	0.0116 7225	0.0112 2341	0.0103 6606	57
58	0.0118 4303	0.0113 8287	0.0109 3661	0.0100 8503	58
59	0.0115 6158	0.0111 0380	0.0106 6012	0.0098 1430	59
60	0.0112 8993	0.0108 3452	0.0103 9343	0.0095 5336	60
61	0.0110 2758	0.0105 7455	0.0101 3604	0.0093 0172	61
62	0.0107 7410	0.0103 2344	0.0098 8751	0.0090 5892	62
63	0.0105 2904	0.0100 8076	0.0096 4741	0.0088 2455	63
64	0.0102 9203	0.0098 4612	0.0094 1534	0.0085 9821	64
65	0.0100 6268	0.0096 1914	0.0091 9094	0.0083 7952	65
66	0.0098 4065	0.0093 9949	0.0089 7386	0.0081 6813	66
67	0.0096 2560	0.0091 8682	0.0087 6376	0.0079 6372	67
68	0.0094 1724	0.0089 8082	0.0085 6033	0.0077 6596	68
69	0.0092 1527	0.0087 8122	0.0083 6329	0.0075 7459	69
70	0.0090 1941	0.0085 8773	0.0081 7235	0.0073 8930	70
71	0.0088 2941	0.0084 0009	0.0079 8727	0.0072 0985	71
72	0.0086 4501	0.0082 1806	0.0078 0779	0.0070 3600	72
73	0.0084 6600	0.0080 4140	0.0076 3368	0.0068 6750	73
74	0.0082 9215	0.0078 6991	0.0074 6473	0.0067 0413	74
75	0.0081 2325	0.0077 0336	0.0073 0072	0.0065 4570	75
76	0.0079 5910	0.0075 4157	0.0071 4146	0.0063 9200	76
77	0.0077 9953	0.0073 8435	0.0069 8676	0.0062 4284	77
78	0.0076 4435	0.0072 3151	0.0068 3645	0.0060 9806	78
79	0.0074 9341	0.0070 8290	0.0066 9036	0.0059 5748	79
80	0.0073 4652	0.0069 3836	0.0065 4832	0.0058 2093	80
81	0.0072 0356	0.0067 9772	0.0064 1019	0.0056 8828	81
82	0.0070 6437	0.0066 6086	0.0062 7583	0.0055 5936	82
83	0.0069 2881	0.0065 2762	0.0061 4509	0.0054 3406	83
84	0.0067 9675	0.0063 9789	0.0060 1784	0.0053 1223	84
85	0.0066 6808	0.0062 7153	0.0058 9396	0.0051 9375	85
86	0.0065 4267	0.0061 4843	0.0057 7333	0.0050 7850	86
87	0.0064 2041	0.0060 2847	0.0056 5584	0.0049 6636	87
88	0.0063 0119	0.0059 1155	0.0055 4138	0.0048 5724	88
89	0.0061 8490	0.0057 9756	0.0054 2984	0.0047 5102	89
90	0.0060 7146	0.0056 8641	0.0053 2113	0.0046 4760	90
91	0.0059 6076	0.0055 7799	0.0052 1516	0.0045 4690	91
92	0.0058 5271	0.0054 7222	0.0051 1182	0.0044 4882	92
93	0.0057 4724	0.0053 6902	0.0050 1104	0.0043 5327	93
94	0.0056 4425	0.0052 6829	0.0049 1273	0.0042 6017	94
95	0.0055 4366	0.0051 6997	0.0048 1681	0.0041 6944	95
96	0.0054 4540	0.0050 7397	0.0047 2321	0.0040 8101	96
97	0.0053 4941	0.0049 8022	0.0046 3186	0.0039 9480	97
98	0.0052 5560	0.0048 8866	0.0045 4268	0.0039 1074	98
99	0.0051 6391	0.0047 9921	0.0044 5560	0.0038 2876	99
100	0.0050 7428	0.0047 1181	0.0043 7057	0.0037 4880	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_{\overline{n}|}^{-1}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	8.150 3177	8.135 4190	8.120 3992	8.090 0003	51
52	8.138 9013	8.123 6756	8.108 3239	8.077 2462	52
53	8.127 6401	8.112 0863	8.096 4013	8.064 6424	53
54	8.116 5281	8.100 6451	8.084 6257	8.052 1827	54
55	8.105 5596	8.089 3462	8.072 9912	8.039 8616	55
56	8.094 7292	8.078 1844	8.061 4926	8.027 6737	56
57	8.084 0319	8.067 1545	8.050 1248	8.015 6138	57
58	8.073 4628	8.056 2518	8.038 8828	8.003 6773	58
59	8.063 0173	8.045 4717	8.027 7623	7.991 8595	59
60	8.052 6913	8.034 8097	8.016 7588	7.980 1562	60
61	8.042 4804	8.024 2619	8.005 8683	7.968 5633	61
62	8.032 3809	8.013 8244	7.995 0870	7.957 0766	62
63	8.022 3889	8.003 4932	7.984 4106	7.945 6927	63
64	8.012 5010	7.993 2651	7.973 8363	7.934 4080	64
65	8.002 7136	7.983 1364	7.963 3600	7.923 2191	65
66	7.993 0238	7.973 1041	7.952 9792	7.912 1227	66
67	7.983 4280	7.963 1651	7.942 6904	7.901 1159	67
68	7.973 9238	7.953 3162	7.932 4906	7.890 1955	68
69	7.964 5079	7.943 5548	7.922 3771	7.879 3590	69
70	7.955 1782	7.933 8783	7.912 3471	7.868 6034	70
71	7.945 9315	7.924 2839	7.902 3985	7.857 2967	71
72	7.936 7658	7.914 7692	7.892 5282	7.847 3256	72
73	7.927 6784	7.905 3319	7.882 7341	7.836 7984	73
74	7.918 6671	7.895 9697	7.873 0142	7.826 3427	74
75	7.909 7296	7.886 6804	7.863 3657	7.815 9560	75
76	7.900 8642	7.877 4618	7.853 7870	7.805 6367	76
77	7.892 0687	7.868 3120	7.844 2760	7.795 3826	77
78	7.883 3409	7.859 2291	7.834 8308	7.785 1917	78
79	7.874 6792	7.850 2113	7.825 4495	7.775 0624	79
80	7.866 0820	7.841 2566	7.816 1300	7.764 9925	80
81	7.857 5471	7.832 3634	7.806 8713	7.754 9807	81
82	7.849 0733	7.823 5301	7.797 6711	7.745 0251	82
83	7.840 6585	7.814 7551	7.788 5279	7.735 1242	83
84	7.832 3017	7.806 0367	7.779 4406	7.725 2766	84
85	7.824 0009	7.797 3736	7.770 4072	7.715 4806	85
86	7.815 7551	7.788 7642	7.761 4265	7.705 7351	86
87	7.807 5628	7.780 2073	7.752 4972	7.696 0384	87
88	7.799 4226	7.771 7015	7.743 6178	7.686 3894	88
89	7.791 3330	7.763 2454	7.734 7873	7.676 7868	89
90	7.783 2932	7.754 8379	7.726 0042	7.667 2293	90
91	7.775 3018	7.746 4778	7.717 2674	7.657 7155	91
92	7.767 3574	7.738 1639	7.708 5754	7.648 2447	92
93	7.759 4593	7.729 8949	7.699 9276	7.638 8156	93
94	7.751 6059	7.721 6700	7.691 3228	7.629 4270	94
95	7.743 7967	7.713 4881	7.682 7599	7.620 0781	95
96	7.736 0302	7.705 3480	7.674 2377	7.610 7677	96
97	7.728 3057	7.697 2488	7.665 7555	7.601 4949	97
98	7.720 6222	7.689 1896	7.657 3119	7.592 2587	98
99	7.712 9787	7.681 1695	7.648 9065	7.583 0583	99
100	7.705 3745	7.673 1875	7.640 5383	7.573 8927	100

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{\overline{n}|} = i/[(1+i)^n - 1]$$

n	2%	2¼%	2½%	2¾%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4950 4950	0.4944 3758	0.4938 2716	0.4932 1825	2
3	0.3267 5467	0.3259 4458	0.3251 3717	0.3243 3243	3
4	0.2426 2375	0.2417 1893	0.2408 1788	0.2399 2059	4
5	0.1921 5839	0.1912 0021	0.1902 4686	0.1892 9832	5
6	0.1585 2581	0.1575 3496	0.1565 4997	0.1555 7083	6
7	0.1345 1196	0.1335 0025	0.1324 9543	0.1314 9747	7
8	0.1165 0980	0.1154 8462	0.1144 6735	0.1134 5795	8
9	0.1025 1544	0.1014 8170	0.1004 5689	0.0994 4095	9
10	0.0913 2653	0.0902 8768	0.0892 5876	0.0882 3972	10
11	0.0821 7794	0.0811 3649	0.0801 0596	0.0790 8629	11
12	0.0745 5960	0.0735 1740	0.0724 8713	0.0714 6871	12
13	0.0681 1835	0.0670 7686	0.0660 4827	0.0650 3252	13
14	0.0626 0197	0.0615 6230	0.0605 3653	0.0595 2457	14
15	0.0578 2547	0.0567 8852	0.0557 6646	0.0547 5917	15
16	0.0536 5013	0.0526 1663	0.0515 9899	0.0505 9710	16
17	0.0499 6984	0.0489 4039	0.0479 2777	0.0469 3186	17
18	0.0467 0210	0.0456 7720	0.0446 7008	0.0436 8063	18
19	0.0437 8177	0.0427 6182	0.0417 6062	0.0407 7802	19
20	0.0411 5672	0.0401 4207	0.0391 4713	0.0381 7173	20
21	0.0387 8477	0.0377 7572	0.0367 8733	0.0358 1941	21
22	0.0366 3140	0.0356 2821	0.0346 4661	0.0336 8640	22
23	0.0346 6810	0.0336 7097	0.0326 9638	0.0317 4410	23
24	0.0328 7110	0.0318 8023	0.0309 1282	0.0299 6863	24
25	0.0312 2044	0.0302 3599	0.0292 7592	0.0283 3997	25
26	0.0296 9923	0.0287 2134	0.0277 6875	0.0268 4116	26
27	0.0282 9309	0.0273 2188	0.0263 7687	0.0254 5776	27
28	0.0269 8967	0.0260 2525	0.0250 8793	0.0241 7738	28
29	0.0257 7836	0.0248 2081	0.0238 9127	0.0229 8935	29
30	0.0246 4992	0.0236 9934	0.0227 7764	0.0218 8442	30
31	0.0235 9635	0.0226 5280	0.0217 3900	0.0208 5453	31
32	0.0226 1061	0.0216 7415	0.0207 6831	0.0198 9263	32
33	0.0216 8653	0.0207 5722	0.0198 5938	0.0189 9253	33
34	0.0208 1867	0.0198 9655	0.0190 0675	0.0181 4875	34
35	0.0200 0221	0.0190 8731	0.0182 0558	0.0173 5645	35
36	0.0192 3285	0.0183 2522	0.0174 5158	0.0166 1132	36
37	0.0185 0678	0.0176 0643	0.0167 4090	0.0159 0953	37
38	0.0178 2057	0.0169 2753	0.0160 7012	0.0152 4764	38
39	0.0171 7114	0.0162 8543	0.0154 3615	0.0146 2256	39
40	0.0165 5575	0.0156 7738	0.0148 3623	0.0140 3151	40
41	0.0159 7188	0.0151 0087	0.0142 6786	0.0134 7200	41
42	0.0154 1729	0.0145 5364	0.0137 2876	0.0129 4175	42
43	0.0148 8993	0.0140 3364	0.0132 1688	0.0124 3871	43
44	0.0143 8794	0.0135 3901	0.0127 3037	0.0119 6100	44
45	0.0139 0962	0.0130 6805	0.0122 6752	0.0115 0693	45
46	0.0134 5342	0.0126 1921	0.0118 2676	0.0110 7493	46
47	0.0130 1792	0.0121 9107	0.0114 0669	0.0106 6358	47
48	0.0126 0184	0.0117 8233	0.0110 0599	0.0102 7158	48
49	0.0122 0396	0.0113 9179	0.0106 2348	0.0098 9773	49
50	0.0118 2321	0.0110 1836	0.0102 5806	0.0095 4092	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	2%	2¼%	2½%	2¾%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.694 6486	9.694 1115	9.693 5750	9.693 0391	2
3	9.514 2218	9.513 1437	9.512 0666	9.510 9904	3
4	9.384 9334	9.383 3107	9.381 6888	9.380 0675	4
5	9.283 6593	9.281 4884	9.279 3175	9.277 1468	5
6	9.200 1000	9.197 3770	9.194 6530	9.191 9282	6
7	9.128 7609	9.125 4821	9.122 2009	9.118 9174	7
8	9.066 3624	9.062 5241	9.058 6816	9.054 8349	8
9	9.010 7893	9.006 3877	9.001 9797	8.997 5652	9
10	8.960 5970	8.955 6285	8.950 6509	8.945 6641	10
11	8.914 7553	8.909 2162	8.903 6648	8.898 1012	11
12	8.872 5036	8.866 3901	8.860 2609	8.854 1160	12
13	8.833 2641	8.826 5727	8.819 8614	8.813 1306	13
14	8.796 5880	8.789 3148	8.782 0175	8.774 6962	14
15	8.762 1192	8.754 2606	8.746 3731	8.738 4569	15
16	8.729 5708	8.721 1230	8.712 6412	8.704 1256	16
17	8.698 7080	8.689 6675	8.680 5872	8.671 4677	17
18	8.669 3365	8.659 6994	8.650 0167	8.640 2888	18
19	8.641 2933	8.631 0561	8.620 7669	8.610 4261	19
20	8.614 4407	8.603 5998	8.592 6999	8.581 7418	20
21	8.588 6612	8.577 2127	8.565 6982	8.554 1184	21
22	8.563 8535	8.551 7939	8.539 6607	8.527 4546	22
23	8.539 9301	8.527 2557	8.514 4996	8.501 6630	23
24	8.516 8142	8.503 5214	8.490 1386	8.476 6669	24
25	8.494 4390	8.480 5242	8.466 5106	8.452 3995	25
26	8.472 7452	8.458 2047	8.443 5563	8.428 8014	26
27	8.451 6803	8.436 5105	8.421 2233	8.405 8202	27
28	8.431 1976	8.415 3949	8.399 4649	8.383 4093	28
29	8.411 2552	8.394 8160	8.378 2392	8.361 5267	29
30	8.391 8156	8.374 7363	8.357 5087	8.340 1350	30
31	8.372 8448	8.355 1219	8.337 2396	8.319 2004	31
32	8.354 3122	8.335 9420	8.317 4012	8.298 6922	32
33	8.336 1901	8.317 1692	8.297 9657	8.278 5827	33
34	8.318 4530	8.298 7777	8.278 9079	8.258 8466	34
35	8.301 0779	8.280 7448	8.260 2046	8.239 4608	35
36	8.284 0437	8.263 0490	8.241 8347	8.220 4041	36
37	8.267 3308	8.245 6713	8.223 7788	8.201 6574	37
38	8.250 9215	8.228 5935	8.206 0190	8.183 2025	38
39	8.234 7992	8.211 7993	8.188 5390	8.165 0233	39
40	8.218 9488	8.195 2734	8.171 3237	8.147 1046	40
41	8.203 3561	8.179 0019	8.154 3587	8.129 4321	41
42	8.188 0082	8.162 9715	8.137 6312	8.111 9930	42
43	8.172 8928	8.147 1704	8.121 1290	8.094 7753	43
44	8.157 9986	8.131 5869	8.104 8410	8.077 7675	44
45	8.143 3151	8.116 2108	8.088 7564	8.060 9593	45
46	8.128 8326	8.101 0322	8.072 8656	8.044 3409	46
47	8.114 5417	8.086 0418	8.057 1595	8.027 9031	47
48	8.100 4338	8.071 2311	8.041 6293	8.011 6373	48
49	8.086 5009	8.056 5920	8.026 2670	7.995 5355	49
50	8.072 7354	8.042 1169	8.011 0651	7.979 5902	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	2%	2¼%	2½%	2¾%	n
51	0.0114 5856	0.0106 6102	0.0099 0870	0.0092 0014	51
52	0.0111 0909	0.0103 1884	0.0095 7446	0.0088 7444	52
53	0.0107 7392	0.0099 9094	0.0092 5449	0.0085 6297	53
54	0.0104 5226	0.0096 7654	0.0089 4799	0.0082 6491	54
55	0.0101 4337	0.0093 7489	0.0086 5419	0.0079 7953	55
56	0.0098 4656	0.0090 8530	0.0083 7243	0.0077 0612	56
57	0.0095 6120	0.0088 0712	0.0081 0204	0.0074 4404	57
58	0.0092 8667	0.0085 3977	0.0078 4244	0.0071 9270	58
59	0.0090 2243	0.0082 8268	0.0075 9307	0.0069 5153	59
60	0.0087 6797	0.0080 3533	0.0073 5340	0.0067 2002	60
61	0.0085 2278	0.0077 9724	0.0071 2294	0.0064 9767	61
62	0.0082 8643	0.0075 6795	0.0069 0126	0.0062 8402	62
63	0.0080 5848	0.0073 4704	0.0066 8790	0.0060 7866	63
64	0.0078 3855	0.0071 3411	0.0064 8249	0.0058 8118	64
65	0.0076 2624	0.0069 2878	0.0062 8463	0.0056 9120	65
66	0.0074 2122	0.0067 3070	0.0060 9398	0.0055 0837	66
67	0.0072 2316	0.0065 3955	0.0059 1021	0.0053 3236	67
68	0.0070 3173	0.0063 5500	0.0057 3300	0.0051 6285	68
69	0.0068 4665	0.0061 7677	0.0055 6206	0.0049 9955	69
70	0.0066 6765	0.0060 0458	0.0053 9712	0.0048 4218	70
71	0.0064 9446	0.0058 3816	0.0052 3790	0.0046 9048	71
72	0.0063 2683	0.0056 7728	0.0050 8417	0.0045 4420	72
73	0.0061 6454	0.0055 2169	0.0049 3568	0.0044 0311	73
74	0.0060 0736	0.0053 7118	0.0047 9222	0.0042 6698	74
75	0.0058 5508	0.0052 2554	0.0046 5358	0.0041 3560	75
76	0.0057 0751	0.0050 8457	0.0045 1956	0.0040 0878	76
77	0.0055 6447	0.0049 4808	0.0043 8997	0.0038 8633	77
78	0.0054 2576	0.0048 1589	0.0042 6463	0.0037 6806	78
79	0.0052 9123	0.0046 8784	0.0041 4338	0.0036 5382	79
80	0.0051 6071	0.0045 6376	0.0040 2605	0.0035 4342	80
81	0.0050 3405	0.0044 4350	0.0039 1248	0.0034 3674	81
82	0.0049 1110	0.0043 2692	0.0038 0254	0.0033 3361	82
83	0.0047 9173	0.0042 1387	0.0036 9608	0.0032 3389	83
84	0.0046 7581	0.0041 0423	0.0035 9298	0.0031 3747	84
85	0.0045 6321	0.0039 9787	0.0034 9310	0.0030 4420	85
86	0.0044 5381	0.0038 9467	0.0033 9633	0.0029 5397	86
87	0.0043 4750	0.0037 9452	0.0033 0255	0.0028 6667	87
88	0.0042 4416	0.0036 9730	0.0032 1165	0.0027 8219	88
89	0.0041 4370	0.0036 0291	0.0031 2353	0.0027 0041	89
90	0.0040 4602	0.0035 1126	0.0030 3809	0.0026 2125	90
91	0.0039 5101	0.0034 2224	0.0029 5523	0.0025 4460	91
92	0.0038 5859	0.0033 3577	0.0028 7486	0.0024 7038	92
93	0.0037 6868	0.0032 5176	0.0027 9690	0.0023 9850	93
94	0.0036 8118	0.0031 7012	0.0027 2126	0.0023 2887	94
95	0.0035 9602	0.0030 9078	0.0026 4786	0.0022 6141	95
96	0.0035 1313	0.0030 1366	0.0025 7662	0.0021 9605	96
97	0.0034 3242	0.0029 3868	0.0025 0747	0.0021 3272	97
98	0.0033 5383	0.0028 6578	0.0024 4034	0.0020 7134	98
99	0.0032 7729	0.0027 9489	0.0023 7517	0.0020 1185	99
100	0.0032 0274	0.0027 2594	0.0023 1188	0.0019 5418	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	2%	2¼%	2½%	2¾%	n
51	8.059 1301	8.027 7987	7.996 0164	7.963 7945	51
52	8.045 6784	8.013 6307	7.981 1145	7.948 1412	52
53	8.032 3738	7.999 6065	7.966 3527	7.932 6245	53
54	8.019 2103	7.985 7202	7.951 7253	7.917 2383	54
55	8.006 1825	7.971 9663	7.937 2266	7.901 9772	55
56	7.993 2847	7.958 3393	7.922 8513	7.886 8358	56
57	7.980 5123	7.944 8343	7.908 5945	7.871 8090	57
58	7.967 8601	7.931 4461	7.894 4513	7.856 8919	58
59	7.955 3239	7.918 1708	7.880 4172	7.842 0805	59
60	7.942 8988	7.905 0038	7.866 4879	7.827 3706	60
61	7.930 5814	7.891 9406	7.852 6595	7.812 7575	61
62	7.918 3676	7.878 9783	7.838 9280	7.798 2378	62
63	7.906 2534	7.866 1123	7.825 2900	7.783 8080	63
64	7.894 2355	7.853 3397	7.811 7417	7.769 4645	64
65	7.882 3106	7.840 6567	7.798 2799	7.755 2040	65
66	7.870 4754	7.828 0603	7.784 9013	7.741 0234	66
67	7.858 7269	7.815 5477	7.771 6030	7.726 9195	67
68	7.847 0623	7.803 1157	7.758 3823	7.712 8897	68
69	7.835 4783	7.790 7614	7.745 2360	7.698 9312	69
70	7.823 9728	7.778 4825	7.732 1619	7.685 0413	70
71	7.812 5428	7.766 2762	7.719 1573	7.671 2175	71
72	7.801 1863	7.754 1403	7.706 2197	7.657 4578	72
73	7.789 9005	7.742 0722	7.693 3469	7.643 7594	73
74	7.778 6836	7.730 0701	7.680 5369	7.630 1204	74
75	7.767 5331	7.718 1312	7.667 7873	7.616 5389	75
76	7.756 4471	7.706 2542	7.655 0962	7.603 0125	76
77	7.745 4235	7.694 4366	7.642 4615	7.589 5397	77
78	7.734 4606	7.682 6767	7.629 8817	7.576 1182	78
79	7.723 5564	7.670 9727	7.617 3545	7.562 7467	79
80	7.712 7091	7.659 3228	7.604 8787	7.549 4232	80
81	7.701 9171	7.647 7255	7.592 4523	7.536 1463	81
82	7.691 1788	7.636 1789	7.580 0739	7.522 9143	82
83	7.680 4926	7.624 6817	7.567 7419	7.509 7257	83
84	7.669 8571	7.613 2322	7.555 4547	7.496 5792	84
85	7.659 2706	7.601 8292	7.543 2112	7.483 4732	85
86	7.648 7319	7.590 4711	7.531 0099	7.470 4066	86
87	7.638 2394	7.579 1567	7.518 8493	7.457 3780	87
88	7.627 7921	7.567 8847	7.506 7284	7.444 3862	88
89	7.617 3886	7.556 6538	7.494 6459	7.431 4300	89
90	7.607 0277	7.545 4630	7.482 6005	7.418 5083	90
91	7.596 7083	7.534 3107	7.470 5914	7.405 6199	91
92	7.586 4290	7.523 1963	7.458 6172	7.392 7639	92
93	7.576 1891	7.512 1185	7.446 6769	7.379 9392	93
94	7.565 9873	7.501 0763	7.434 7697	7.367 1448	94
95	7.555 8224	7.490 0686	7.422 8942	7.354 3797	95
96	7.545 6939	7.479 0945	7.411 0500	7.341 6431	96
97	7.535 6005	7.468 1530	7.399 2358	7.328 9340	97
98	7.525 5414	7.457 2433	7.387 4507	7.316 2516	98
99	7.515 5156	7.446 3645	7.375 6941	7.303 5953	99
100	7.505 5223	7.435 5157	7.363 9650	7.290 9639	100

Annuity Whose Amount at Compound Interest is 1

$$s^{-1}_{n|} = i/[(1+i)^n - 1]$$

n	3%	3½%	4%	4½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4926 1084	0.4914 0049	0.4901 9608	0.4889 9756	2
3	0.3235 3036	0.3219 3418	0.3203 4854	0.3187 7336	3
4	0.2390 2705	0.2372 5114	0.2354 9005	0.2337 4365	4
5	0.1883 5457	0.1864 8137	0.1846 2711	0.1827 9164	5
6	0.1545 9750	0.1526 6821	0.1507 6190	0.1488 7839	6
7	0.1305 0635	0.1285 4449	0.1266 0961	0.1247 0147	7
8	0.1124 5639	0.1104 7665	0.1085 2783	0.1066 0965	8
9	0.0984 3386	0.0964 4601	0.0944 9299	0.0925 7447	9
10	0.0872 3051	0.0852 4137	0.0832 9094	0.0813 7882	10
11	0.0780 7745	0.0760 9197	0.0741 4904	0.0722 4818	11
12	0.0704 6209	0.0684 8395	0.0665 5217	0.0646 6619	12
13	0.0640 2954	0.0620 6157	0.0601 4373	0.0582 7535	13
14	0.0585 2634	0.0565 7073	0.0546 6897	0.0528 2032	14
15	0.0537 6658	0.0518 2507	0.0499 4110	0.0481 1381	15
16	0.0496 1085	0.0476 8483	0.0458 2000	0.0440 1537	16
17	0.0459 5253	0.0440 4313	0.0421 9852	0.0404 1758	17
18	0.0427 0870	0.0408 1684	0.0389 9333	0.0372 3690	18
19	0.0398 1388	0.0379 4033	0.0361 3862	0.0344 0734	19
20	0.0372 1571	0.0353 6108	0.0335 8175	0.0318 7614	20
21	0.0348 7178	0.0330 3659	0.0312 8011	0.0296 0057	21
22	0.0327 4739	0.0309 3207	0.0291 9881	0.0275 4565	22
23	0.0308 1390	0.0290 1880	0.0273 0906	0.0256 8249	23
24	0.0290 4742	0.0272 7283	0.0255 8683	0.0239 8703	24
25	0.0274 2787	0.0256 7404	0.0240 1196	0.0224 3903	25
26	0.0259 3829	0.0242 0540	0.0225 6738	0.0210 2137	26
27	0.0245 6421	0.0228 5241	0.0212 3854	0.0197 1946	27
28	0.0232 9323	0.0216 0265	0.0200 1298	0.0185 2081	28
29	0.0221 1467	0.0204 4538	0.0188 7993	0.0174 1461	29
30	0.0210 1926	0.0193 7133	0.0178 3010	0.0163 9154	30
31	0.0199 9893	0.0183 7240	0.0168 5535	0.0154 4345	31
32	0.0190 4662	0.0174 4150	0.0159 4859	0.0145 6320	32
33	0.0181 5612	0.0165 7242	0.0151 0357	0.0137 4453	33
34	0.0173 2196	0.0157 5966	0.0143 1477	0.0129 8191	34
35	0.0165 3929	0.0149 9835	0.0135 7732	0.0122 7045	35
36	0.0158 0379	0.0142 8416	0.0128 8688	0.0116 0578	36
37	0.0151 1162	0.0136 1325	0.0122 3957	0.0109 8402	37
38	0.0144 5934	0.0129 8214	0.0116 3192	0.0104 0169	38
39	0.0138 4385	0.0123 8775	0.0110 6083	0.0098 5567	39
40	0.0132 6238	0.0118 2728	0.0105 2349	0.0093 4315	40
41	0.0127 1241	0.0112 9822	0.0100 1738	0.0088 6158	41
42	0.0121 9167	0.0107 9828	0.0095 4020	0.0084 0868	42
43	0.0116 9811	0.0103 2539	0.0090 8989	0.0079 8235	43
44	0.0112 2985	0.0098 7768	0.0086 6454	0.0075 8071	44
45	0.0107 8518	0.0094 5343	0.0082 6246	0.0072 0202	45
46	0.0103 6254	0.0090 5108	0.0078 8205	0.0068 4471	46
47	0.0099 6051	0.0086 6919	0.0075 2189	0.0065 0734	47
48	0.0095 7777	0.0083 0646	0.0071 8065	0.0061 8858	48
49	0.0092 1314	0.0079 6167	0.0068 5712	0.0058 8722	49
50	0.0088 6550	0.0076 3371	0.0065 5020	0.0056 0215	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$\log s_{\overline{n}|}^{-1}$

n	3%	3½%	4%	4½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.692 5040	9.691 4356	9.690 3698	9.689 3067	2
3	9.509 9150	9.507 7671	9.505 6227	9.503 4820	3
4	9.378 4470	9.375 2083	9.371 9726	9.368 7398	4
5	9.274 9762	9.270 6355	9.266 2955	9.261 9563	5
6	9.189 2024	9.183 7487	9.178 2916	9.172 8316	6
7	9.115 6317	9.109 0535	9.102 4667	9.095 8716	7
8	9.050 9841	9.043 2704	9.035 5412	9.027 7966	8
9	8.993 1445	8.984 2842	8.975 3996	8.966 4912	9
10	8.940 6684	8.930 6504	8.920 5978	8.910 5114	10
11	8.892 5256	8.881 3388	8.870 1055	8.858 8269	11
12	8.847 9555	8.835 5888	8.823 1622	8.810 6773	12
13	8.806 3804	8.792 8228	8.779 1903	8.765 4849	13
14	8.767 3514	8.752 5917	8.737 7409	8.722 8010	14
15	8.730 5124	8.714 5399	8.698 4581	8.682 2698	15
16	8.695 5767	8.678 3803	8.661 0550	8.643 6044	16
17	8.662 3094	8.643 8782	8.625 2972	8.606 5704	17
18	8.630 5163	8.610 8394	8.590 9903	8.570 9735	18
19	8.600 0345	8.579 1010	8.557 9715	8.536 6512	19
20	8.570 7263	8.548 5255	8.526 1034	8.503 4658	20
21	8.542 4741	8.518 9952	8.495 2682	8.471 3000	21
22	8.515 1767	8.490 4090	8.465 3652	8.440 0530	22
23	8.488 7467	8.462 6795	8.436 3067	8.409 6372	23
24	8.463 1075	8.435 7302	8.408 0165	8.379 9765	24
25	8.438 1921	8.409 4941	8.380 4277	8.351 0040	25
26	8.413 9413	8.383 9122	8.353 4811	8.322 6609	26
27	8.390 3028	8.358 9320	8.327 1246	8.294 8950	27
28	8.367 2298	8.334 5069	8.301 3117	8.267 6598	28
29	8.344 6805	8.310 5953	8.276 0005	8.240 9139	29
30	8.322 6174	8.287 1595	8.251 1538	8.214 6198	30
31	8.301 0066	8.264 1658	8.226 7379	8.188 7442	31
32	8.279 8179	8.241 5840	8.202 7223	8.163 2567	32
33	8.259 0231	8.219 3859	8.179 0795	8.138 1298	33
34	8.238 5971	8.197 5468	8.155 7845	8.113 3387	34
35	8.218 5169	8.176 0434	8.132 8142	8.088 8604	35
36	8.198 7614	8.154 8548	8.110 1477	8.064 6743	36
37	8.179 3112	8.133 9617	8.087 7660	8.040 7613	37
38	8.160 1485	8.113 3463	8.065 6514	8.017 1040	38
39	8.141 2569	8.092 9924	8.043 7876	7.993 6862	39
40	8.122 6214	8.072 8850	8.022 1598	7.970 4932	40
41	8.104 2279	8.053 0100	8.000 7540	7.947 5111	41
42	8.086 0634	8.033 3545	7.979 5575	7.924 7276	42
43	8.068 1157	8.013 9065	7.958 5584	7.902 1308	43
44	8.050 3738	7.994 6551	7.937 7457	7.879 7097	44
45	8.032 8273	7.975 5896	7.917 1092	7.857 4542	45
46	8.015 4661	7.956 7006	7.896 6392	7.835 3551	46
47	7.998 2814	7.937 9787	7.876 3268	7.813 4035	47
48	7.981 2646	7.919 4159	7.856 1636	7.791 5911	48
49	7.964 4076	7.901 0040	7.836 1420	7.769 9105	49
50	7.947 7030	7.882 7356	7.816 2546	7.748 3544	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	3%	3½%	4%	4½%	n
51	0.0085 3382	0.0073 2156	0.0062 5885	0.0053 3232	51
52	0.0082 1718	0.0070 2429	0.0059 8212	0.0050 7679	52
53	0.0079 1471	0.0067 4100	0.0057 1915	0.0048 3469	53
54	0.0076 2558	0.0064 7090	0.0054 6910	0.0046 0519	54
55	0.0073 4907	0.0062 1323	0.0052 3124	0.0043 8754	55
56	0.0070 8447	0.0059 6730	0.0050 0487	0.0041 8105	56
57	0.0068 3114	0.0057 3245	0.0047 8932	0.0039 8506	57
58	0.0065 8848	0.0055 0810	0.0045 8401	0.0037 9897	58
59	0.0063 5593	0.0052 9366	0.0043 8836	0.0036 2221	59
60	0.0061 3296	0.0050 8862	0.0042 0185	0.0034 5426	60
61	0.0059 1908	0.0048 9249	0.0040 2398	0.0032 9462	61
62	0.0057 1385	0.0047 0480	0.0038 5430	0.0031 4284	62
63	0.0055 1682	0.0045 2513	0.0036 9237	0.0029 9848	63
64	0.0053 2760	0.0043 5308	0.0035 3780	0.0028 6115	64
65	0.0051 4581	0.0041 8826	0.0033 9019	0.0027 3047	65
66	0.0049 7110	0.0040 3031	0.0032 4921	0.0026 0608	66
67	0.0048 0313	0.0038 7892	0.0031 1451	0.0024 8765	67
68	0.0046 4159	0.0037 3375	0.0029 8578	0.0023 7487	68
69	0.0044 8618	0.0035 9453	0.0028 6272	0.0022 6745	69
70	0.0043 3663	0.0034 6095	0.0027 4506	0.0021 6511	70
71	0.0041 9266	0.0033 3277	0.0026 3253	0.0020 6759	71
72	0.0040 5405	0.0032 0973	0.0025 2489	0.0019 7465	72
73	0.0039 2053	0.0030 9160	0.0024 2190	0.0018 8606	73
74	0.0037 9191	0.0029 7816	0.0023 2334	0.0018 0159	74
75	0.0036 6796	0.0028 6919	0.0022 2900	0.0017 2104	75
76	0.0035 4849	0.0027 6450	0.0021 3869	0.0016 4422	76
77	0.0034 3331	0.0026 6390	0.0020 5221	0.0015 7094	77
78	0.0033 2224	0.0025 6721	0.0019 6939	0.0015 0104	78
79	0.0032 1510	0.0024 7426	0.0018 9007	0.0014 3434	79
80	0.0031 1175	0.0023 8489	0.0018 1408	0.0013 7069	80
81	0.0030 1201	0.0022 9894	0.0017 4127	0.0013 0995	81
82	0.0029 1576	0.0022 1628	0.0016 7150	0.0012 5197	82
83	0.0028 2284	0.0021 3676	0.0016 0463	0.0011 9663	83
84	0.0027 3313	0.0020 6025	0.0015 4054	0.0011 4379	84
85	0.0026 4650	0.0019 8662	0.0014 7909	0.0010 9334	85
86	0.0025 6284	0.0019 1576	0.0014 2018	0.0010 4516	86
87	0.0024 8202	0.0018 4756	0.0013 6370	0.0009 9915	87
88	0.0024 0393	0.0017 8190	0.0013 0953	0.0009 5522	88
89	0.0023 2848	0.0017 1868	0.0012 5758	0.0009 1325	89
90	0.0022 5556	0.0016 5781	0.0012 0775	0.0008 7316	90
91	0.0021 8508	0.0015 9919	0.0011 5995	0.0008 3486	91
92	0.0021 1694	0.0015 4273	0.0011 1410	0.0007 9827	92
93	0.0020 5107	0.0014 8834	0.0010 7010	0.0007 6331	93
94	0.0019 8737	0.0014 3594	0.0010 2789	0.0007 2991	94
95	0.0019 2577	0.0013 8546	0.0009 8738	0.0006 9799	95
96	0.0018 6619	0.0013 3682	0.0009 4850	0.0006 6749	96
97	0.0018 0856	0.0012 8995	0.0009 1119	0.0006 3834	97
98	0.0017 5281	0.0012 4478	0.0008 7538	0.0006 1048	98
99	0.0016 9886	0.0012 0124	0.0008 4100	0.0005 8385	99
100	0.0016 4667	0.0011 5927	0.0008 0800	0.0005 5839	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	3%	3½%	4%	4½%	n
51	7.931 1436	7.864 6040	7.796 4945	7.726 9161	51
52	7.914 7230	7.846 6023	7.776 8555	7.705 5894	52
53	7.898 4348	7.828 7245	7.757 3312	7.684 3685	53
54	7.882 2731	7.810 9645	7.737 9160	7.663 2474	54
55	7.866 2324	7.793 3174	7.718 6049	7.642 2214	55
56	7.850 3075	7.775 7778	7.699 3926	7.621 2855	56
57	7.834 4934	7.758 3408	7.680 2741	7.600 4352	57
58	7.818 7855	7.741 0016	7.661 2454	7.579 6658	58
59	7.803 1790	7.723 7561	7.642 3020	7.558 9736	59
60	7.787 6702	7.706 6001	7.623 4401	7.538 3544	60
61	7.772 2547	7.689 5298	7.604 6556	7.517 8050	61
62	7.756 9287	7.672 5414	7.585 9452	7.497 3217	62
63	7.741 6890	7.655 6314	7.567 3052	7.476 9012	63
64	7.726 5318	7.638 7963	7.548 7327	7.456 5406	64
65	7.711 4539	7.622 0332	7.530 2246	7.436 2369	65
66	7.696 4526	7.605 3389	7.511 7778	7.415 9873	66
67	7.681 5243	7.588 7107	7.493 3897	7.395 7893	67
68	7.666 6665	7.572 1459	7.475 0578	7.375 6404	68
69	7.651 8765	7.555 6417	7.456 7794	7.355 5382	69
70	7.637 1518	7.539 1955	7.438 5522	7.335 4805	70
71	7.622 4900	7.522 8054	7.420 3740	7.315 4654	71
72	7.607 8886	7.506 4688	7.402 2428	7.295 4907	72
73	7.593 3452	7.490 1837	7.384 1564	7.275 5545	73
74	7.578 8581	7.473 9481	7.366 1128	7.255 6551	74
75	7.564 4250	7.457 7598	7.348 1104	7.235 7907	75
76	7.550 0440	7.441 6172	7.330 1473	7.215 9598	76
77	7.535 7131	7.425 5184	7.312 2217	7.196 1607	77
78	7.521 4307	7.409 4617	7.294 3323	7.176 3921	78
79	7.507 1948	7.393 4456	7.276 4773	7.156 6524	79
80	7.493 0042	7.377 4681	7.258 6554	7.136 9404	80
81	7.478 8568	7.361 5282	7.240 8651	7.117 2548	81
82	7.464 7515	7.345 6243	7.223 1053	7.097 5945	82
83	7.450 6866	7.329 7549	7.205 3746	7.077 9582	83
84	7.436 6608	7.313 9190	7.187 6716	7.058 3449	84
85	7.422 6726	7.298 1150	7.169 9955	7.038 7535	85
86	7.408 7209	7.282 3418	7.152 3450	7.019 1831	86
87	7.394 8045	7.266 5984	7.134 7189	6.999 6326	87
88	7.380 9219	7.250 8834	7.117 1165	6.980 1013	88
89	7.367 0723	7.235 1960	7.099 5366	6.960 5882	89
90	7.353 2544	7.219 5351	7.081 9785	6.941 0925	90
91	7.339 4671	7.203 8997	7.064 4411	6.921 6135	91
92	7.325 7096	7.188 2888	7.046 9236	6.902 1503	92
93	7.311 9807	7.172 7016	7.029 4253	6.882 7025	93
94	7.298 2795	7.157 1372	7.011 9453	6.863 2690	94
95	7.284 6052	7.141 5948	6.994 4829	6.843 8495	95
96	7.270 9567	7.126 0735	6.977 0375	6.824 4433	96
97	7.257 3332	7.110 5724	6.959 6082	6.805 0497	97
98	7.243 7341	7.095 0912	6.942 1945	6.785 6681	98
99	7.230 1585	7.079 6288	6.924 7958	6.766 2982	99
100	7.216 6056	7.064 1847	6.907 4114	6.746 9394	100

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	5%	5½%	6%	6½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4878 0488	0.4866 1800	0.4854 3689	0.4842 6150	2
3	0.3172 0856	0.3156 5407	0.3141 0981	0.3125 7570	3
4	0.2320 1183	0.2302 9449	0.2285 9149	0.2269 0274	4
5	0.1809 7480	0.1791 7644	0.1773 9640	0.1756 3454	5
6	0.1470 1747	0.1451 7895	0.1433 6263	0.1415 6831	6
7	0.1228 1982	0.1209 6442	0.1191 3502	0.1173 3137	7
8	0.1047 2181	0.1028 6401	0.1010 3594	0.0992 3730	8
9	0.0906 9008	0.0888 3946	0.0870 2224	0.0852 3803	9
10	0.0795 0458	0.0776 6777	0.0758 6796	0.0741 0469	10
11	0.0703 8889	0.0685 7065	0.0667 9294	0.0650 5521	11
12	0.0628 2541	0.0610 2923	0.0592 7703	0.0575 6817	12
13	0.0564 5577	0.0546 8426	0.0529 6011	0.0512 8256	13
14	0.0510 2397	0.0492 7912	0.0475 8491	0.0459 4048	14
15	0.0463 4229	0.0446 2560	0.0429 6276	0.0413 5278	15
16	0.0422 6991	0.0405 8254	0.0389 5214	0.0373 7757	16
17	0.0386 9914	0.0370 4197	0.0354 4480	0.0339 0633	17
18	0.0355 4622	0.0339 1992	0.0323 5654	0.0308 5461	18
19	0.0327 4501	0.0311 5006	0.0296 2086	0.0281 5575	19
20	0.0302 4259	0.0286 7933	0.0271 8456	0.0257 5640	20
21	0.0279 9611	0.0264 6478	0.0250 0455	0.0236 1333	21
22	0.0259 7051	0.0244 7123	0.0230 4557	0.0216 9120	22
23	0.0241 3682	0.0226 6965	0.0212 7848	0.0199 6078	23
24	0.0224 7090	0.0210 3580	0.0196 7900	0.0183 9770	24
25	0.0209 5246	0.0195 4935	0.0182 2672	0.0169 8148	25
26	0.0195 6432	0.0181 9307	0.0169 0435	0.0156 9480	26
27	0.0182 9186	0.0169 5228	0.0156 9717	0.0145 2288	27
28	0.0171 2253	0.0158 1440	0.0145 9255	0.0134 5305	28
29	0.0160 4551	0.0147 6857	0.0135 7961	0.0124 7440	29
30	0.0150 5144	0.0138 0539	0.0126 4891	0.0115 7744	30
31	0.0141 3212	0.0129 1665	0.0117 9222	0.0107 5393	31
32	0.0132 8042	0.0120 9519	0.0110 0234	0.0099 9665	32
33	0.0124 9004	0.0113 3469	0.0102 7293	0.0092 9924	33
34	0.0117 5545	0.0106 2958	0.0095 9843	0.0086 5610	34
35	0.0110 7171	0.0099 7493	0.0089 7386	0.0080 6226	35
36	0.0104 3446	0.0093 6635	0.0083 9483	0.0075 1332	36
37	0.0098 3979	0.0087 9993	0.0078 5743	0.0070 0534	37
38	0.0092 8423	0.0082 7217	0.0073 5812	0.0065 3480	38
39	0.0087 6462	0.0077 7991	0.0068 9377	0.0060 9854	39
40	0.0082 7816	0.0073 2034	0.0064 6154	0.0056 9373	40
41	0.0078 2229	0.0068 9090	0.0060 5886	0.0053 1779	41
42	0.0073 9471	0.0064 8927	0.0056 8342	0.0049 6842	42
43	0.0069 9333	0.0061 1337	0.0053 3312	0.0046 4352	43
44	0.0066 1625	0.0057 6128	0.0050 0606	0.0043 4119	44
45	0.0062 6173	0.0054 3127	0.0047 0050	0.0040 5968	45
46	0.0059 2820	0.0051 2175	0.0044 1485	0.0037 9743	46
47	0.0056 1421	0.0048 3129	0.0041 4768	0.0035 5300	47
48	0.0053 1843	0.0045 5854	0.0038 9766	0.0033 2506	48
49	0.0050 3965	0.0043 0230	0.0036 6356	0.0031 1240	49
50	0.0047 7674	0.0040 6145	0.0034 4429	0.0029 1393	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_n^{-1}$$

n	5%	5½%	6%	6½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.688 2461	9.687 1882	9.686 1328	9.685 0799	2
3	9.501 3449	9.499 2114	9.497 0815	9.494 9552	3
4	9.365 5102	9.362 2836	9.359 0601	9.355 8397	4
5	9.257 6181	9.253 2809	9.248 9448	9.244 6099	5
6	9.167 3690	9.161 9037	9.156 4360	9.150 9661	6
7	9.089 2684	9.082 6576	9.076 0394	9.069 4141	7
8	9.020 0372	9.012 2635	9.004 4759	8.996 6749	8
9	8.957 5598	8.948 6059	8.939 6303	8.930 6334	9
10	8.900 3921	8.890 2408	8.880 0584	8.869 8457	10
11	8.847 5041	8.836 1383	8.824 7306	8.813 2821	11
12	8.798 1353	8.785 5379	8.772 8864	8.760 1824	12
13	8.751 7083	8.737 8623	8.723 9488	8.709 9697	13
14	8.707 7742	8.692 6629	8.677 4692	8.662 1955	14
15	8.665 9774	8.649 5840	8.633 0923	8.616 5048	15
16	8.626 0313	8.608 3392	8.590 5314	8.572 6111	16
17	8.587 7041	8.568 6941	8.549 5525	8.530 2807	17
18	8.550 7935	8.530 4548	8.509 9621	8.489 3201	18
19	8.515 1451	8.493 4588	8.471 5977	8.449 5671	19
20	8.480 6189	8.457 5690	8.434 3222	8.410 8850	20
21	8.447 0976	8.422 6682	8.398 0190	8.373 1573	21
22	8.414 4805	8.388 6558	8.362 5874	8.336 2837	22
23	8.382 6801	8.355 4448	8.327 9407	8.300 1775	23
24	8.351 6205	8.322 9591	8.294 0031	8.264 7635	24
25	8.321 2350	8.291 1324	8.260 7085	8.229 9756	25
26	8.291 4647	8.259 9061	8.227 9984	8.195 7557	26
27	8.262 2579	8.229 2282	8.195 8213	8.162 0527	27
28	8.233 5679	8.199 0527	8.164 1312	8.128 8208	28
29	8.205 3536	8.169 3385	8.132 8874	8.096 0196	29
30	8.177 5779	8.140 0486	8.102 0532	8.063 6126	30
31	8.150 2073	8.111 1500	8.071 5955	8.031 5673	31
32	8.123 2118	8.082 6127	8.041 4850	7.999 8544	32
33	8.096 5639	8.054 4095	8.011 6946	7.968 4473	33
34	8.070 2391	8.026 5159	7.982 2000	7.937 3220	34
35	8.044 2146	7.998 9097	7.952 9793	7.906 4568	35
36	8.018 4698	7.971 5703	7.924 0121	7.875 8319	36
37	7.992 9860	7.944 4793	7.895 2804	7.845 4292	37
38	7.967 7456	7.917 6192	7.866 7671	7.815 2323	38
39	7.942 7333	7.890 9748	7.838 4569	7.785 2260	39
40	7.917 9339	7.864 5315	7.810 3358	7.755 3966	40
41	7.893 3340	7.838 2759	7.782 3906	7.725 7313	41
42	7.868 9214	7.812 1961	7.754 6094	7.696 2186	42
43	7.844 6842	7.786 2804	7.726 9812	7.666 8476	43
44	7.820 6120	7.760 5186	7.699 4958	7.637 6085	44
45	7.796 6947	7.734 9010	7.672 1437	7.608 4922	45
46	7.772 9231	7.709 4185	7.644 9162	7.579 4903	46
47	7.749 2887	7.684 0627	7.617 8053	7.550 5948	47
48	7.725 7835	7.658 8260	7.590 8034	7.521 7988	48
49	7.702 4000	7.633 7010	7.563 9035	7.493 0954	49
50	7.679 1312	7.608 6811	7.537 0992	7.464 4784	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	5%	5½%	6%	6½%	n
51	0.0045 2867	0.0038 3495	0.0032 3880	0.0027 2861	51
52	0.0042 9450	0.0036 2185	0.0030 4617	0.0025 5553	52
53	0.0040 7334	0.0034 2130	0.0028 6551	0.0023 9382	53
54	0.0038 6438	0.0032 3245	0.0026 9602	0.0022 4267	54
55	0.0036 6686	0.0030 5458	0.0025 3696	0.0021 0137	55
56	0.0034 8010	0.0028 8698	0.0023 8765	0.0019 6923	56
57	0.0033 0343	0.0027 2900	0.0022 4744	0.0018 4563	57
58	0.0031 3626	0.0025 8006	0.0021 1574	0.0017 2999	58
59	0.0029 7802	0.0024 3959	0.0019 9200	0.0016 2177	59
60	0.0028 2818	0.0023 0707	0.0018 7572	0.0015 2047	60
61	0.0026 8627	0.0021 8202	0.0017 6642	0.0014 2564	61
62	0.0025 5183	0.0020 6400	0.0016 6366	0.0013 3684	62
63	0.0024 2442	0.0019 5258	0.0015 6704	0.0012 5367	63
64	0.0023 0365	0.0018 4737	0.0014 7615	0.0011 7577	64
65	0.0021 8915	0.0017 4800	0.0013 9066	0.0011 0280	65
66	0.0020 8057	0.0016 5413	0.0013 1022	0.0010 3442	66
67	0.0019 7757	0.0015 6544	0.0012 3454	0.0009 7034	67
68	0.0018 7986	0.0014 8163	0.0011 6330	0.0009 1029	68
69	0.0017 8715	0.0014 0242	0.0010 9625	0.0008 5400	69
70	0.0016 9915	0.0013 2754	0.0010 3313	0.0008 0124	70
71	0.0016 1563	0.0012 5675	0.0009 7370	0.0007 5177	71
72	0.0015 3633	0.0011 8982	0.0009 1774	0.0007 0539	72
73	0.0014 6103	0.0011 2652	0.0008 6505	0.0006 6190	73
74	0.0013 8953	0.0010 6665	0.0008 1542	0.0006 2112	74
75	0.0013 2161	0.0010 1002	0.0007 6867	0.0005 8287	75
76	0.0012 5709	0.0009 5645	0.0007 2463	0.0005 4699	76
77	0.0011 9580	0.0009 0577	0.0006 8315	0.0005 1335	77
78	0.0011 3756	0.0008 5781	0.0006 4407	0.0004 8178	78
79	0.0010 8222	0.0008 1243	0.0006 0724	0.0004 5217	79
80	0.0010 2962	0.0007 6948	0.0005 7254	0.0004 2440	80
81	0.0009 7963	0.0007 2884	0.0005 3984	0.0003 9834	81
82	0.0009 3211	0.0006 9036	0.0005 0903	0.0003 7388	82
83	0.0008 8694	0.0006 5395	0.0004 7998	0.0003 5094	83
84	0.0008 4399	0.0006 1947	0.0004 5261	0.0003 2941	84
85	0.0008 0316	0.0005 8683	0.0004 2681	0.0003 0921	85
86	0.0007 6433	0.0005 5593	0.0004 0249	0.0002 9026	86
87	0.0007 2740	0.0005 2667	0.0003 7956	0.0002 7247	87
88	0.0006 9228	0.0004 9896	0.0003 5795	0.0002 5577	88
89	0.0006 5888	0.0004 7273	0.0003 3757	0.0002 4010	89
90	0.0006 2711	0.0004 4788	0.0003 1836	0.0002 2540	90
91	0.0005 9689	0.0004 2435	0.0003 0025	0.0002 1160	91
92	0.0005 6815	0.0004 0207	0.0002 8318	0.0001 9864	92
93	0.0005 4080	0.0003 8096	0.0002 6708	0.0001 8649	93
94	0.0005 1478	0.0003 6097	0.0002 5190	0.0001 7507	94
95	0.0004 9003	0.0003 4204	0.0002 3758	0.0001 6436	95
96	0.0004 6648	0.0003 2410	0.0002 2408	0.0001 5431	96
97	0.0004 4407	0.0003 0711	0.0002 1135	0.0001 4487	97
98	0.0004 2274	0.0002 9101	0.0001 9935	0.0001 3601	98
99	0.0004 0245	0.0002 7577	0.0001 8803	0.0001 2769	99
100	0.0003 8314	0.0002 6132	0.0001 7736	0.0001 1988	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	5%	5½%	6%	6½%	n
51	7.655 9707	7.583 7601	7.510 3845	7.435 9422	51
52	7.632 9123	7.558 9318	7.483 7538	7.407 4814	52
53	7.609 9503	7.534 1908	7.457 2017	7.379 0908	53
54	7.587 0795	7.509 5323	7.430 7233	7.350 7662	54
55	7.564 2948	7.484 9512	7.404 3142	7.322 5029	55
56	7.541 5916	7.460 4432	7.377 9703	7.294 2973	56
57	7.518 9651	7.436 0039	7.351 6872	7.266 1454	57
58	7.496 4117	7.411 6295	7.325 4615	7.238 0438	58
59	7.473 9271	7.387 3162	7.299 2897	7.209 9893	59
60	7.451 5078	7.363 0606	7.273 1684	7.181 9799	60
61	7.429 1503	7.338 8595	7.247 0947	7.154 0097	61
62	7.406 8514	7.314 7098	7.221 0657	7.126 0791	62
63	7.384 6078	7.290 6085	7.195 0787	7.098 1847	63
64	7.362 4169	7.266 5529	7.169 1314	7.070 3242	64
65	7.340 2758	7.242 5407	7.143 2211	7.042 4954	65
66	7.318 1820	7.218 5693	7.117 3459	7.014 6962	66
67	7.296 1330	7.194 6364	7.091 5035	6.986 9251	67
68	7.274 1265	7.170 7400	7.065 6921	6.959 1799	68
69	7.252 1604	7.146 8780	7.039 9099	6.931 4592	69
70	7.230 2326	7.123 0487	7.014 1551	6.903 7615	70
71	7.208 3410	7.099 2501	6.988 4263	6.876 0853	71
72	7.186 4840	7.075 4806	6.962 7215	6.848 4293	72
73	7.164 6597	7.051 7386	6.937 0398	6.820 7921	73
74	7.142 8665	7.028 0227	6.911 3797	6.793 1726	74
75	7.121 1029	7.004 3313	6.885 7398	6.765 5698	75
76	7.099 3672	6.980 6633	6.860 1191	6.737 9826	76
77	7.077 6584	6.957 0172	6.834 5165	6.710 4099	77
78	7.055 9747	6.933 3921	6.808 9308	6.682 8511	78
79	7.034 3152	6.909 7866	6.783 3611	6.655 3051	79
80	7.012 6785	6.886 1999	6.757 8065	6.627 7711	80
81	6.991 0634	6.862 6307	6.732 2662	6.600 2485	81
82	6.969 4692	6.839 0784	6.706 7392	6.572 7365	82
83	6.947 8945	6.815 5418	6.681 2249	6.545 2344	83
84	6.926 3386	6.792 0203	6.655 7224	6.517 7417	84
85	6.904 8003	6.768 5128	6.630 2311	6.490 2578	85
86	6.883 2790	6.745 0189	6.604 7504	6.462 7821	86
87	6.861 7736	6.721 5376	6.579 2796	6.435 3142	87
88	6.840 2836	6.698 0684	6.553 8183	6.407 8535	88
89	6.818 8080	6.674 6106	6.528 3658	6.380 3995	89
90	6.797 3462	6.651 1636	6.502 9216	6.352 9520	90
91	6.775 8976	6.627 7269	6.477 4854	6.325 5106	91
92	6.754 4616	6.604 2997	6.452 0565	6.298 0747	92
93	6.733 0373	6.580 8817	6.426 6347	6.270 6440	93
94	6.711 6244	6.557 4725	6.401 2193	6.243 2184	94
95	6.690 2222	6.534 0715	6.375 8104	6.215 7974	95
96	6.668 8303	6.510 6782	6.350 4071	6.188 3808	96
97	6.647 4481	6.487 2924	6.325 0094	6.160 9682	97
98	6.626 0751	6.463 9135	6.299 6170	6.133 5596	98
99	6.604 7111	6.440 5413	6.274 2299	6.106 1545	99
100	6.583 3553	6.417 1753	6.248 8466	6.078 7528	100

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	7%	7½%	8%	8½%	n
1	1.0000 0000	1.0000 0000	1.0000 0000	1.0000 0000	1
2	0.4830 9179	0.4819 2771	0.4807 6923	0.4796 1631	2
3	0.3110 5166	0.3095 3763	0.3080 3351	0.3065 3925	3
4	0.2252 2812	0.2235 6751	0.2219 2080	0.2202 8789	4
5	0.1738 9069	0.1721 6472	0.1704 5645	0.1687 6575	5
6	0.1397 9580	0.1380 4489	0.1363 1539	0.1346 0708	6
7	0.1155 5322	0.1138 0032	0.1120 7240	0.1103 6922	7
8	0.0974 6776	0.0957 2702	0.0940 1476	0.0923 3065	8
9	0.0834 8647	0.0817 6716	0.0800 7971	0.0784 2372	9
10	0.0723 7750	0.0706 8593	0.0690 2949	0.0674 0771	10
11	0.0633 5690	0.0616 9747	0.0600 7634	0.0584 9293	11
12	0.0559 0199	0.0542 7783	0.0526 9502	0.0511 5286	12
13	0.0496 5085	0.0480 6420	0.0465 2181	0.0450 2287	13
14	0.0443 4494	0.0427 9737	0.0412 9685	0.0398 4244	14
15	0.0397 9462	0.0382 8724	0.0368 2954	0.0354 2046	15
16	0.0358 5765	0.0343 9116	0.0329 7687	0.0316 1354	16
17	0.0324 2519	0.0310 0003	0.0296 2943	0.0283 1198	17
18	0.0294 1260	0.0280 2896	0.0267 0210	0.0254 3041	18
19	0.0267 5301	0.0254 1090	0.0241 2763	0.0229 0140	19
20	0.0243 9293	0.0230 9219	0.0218 5221	0.0206 7097	20
21	0.0222 8900	0.0210 2937	0.0198 3225	0.0186 9541	21
22	0.0204 0577	0.0191 8687	0.0180 3207	0.0169 3892	22
23	0.0187 1393	0.0175 3528	0.0164 2217	0.0153 7193	23
24	0.0171 8902	0.0160 5008	0.0149 7796	0.0139 6975	24
25	0.0158 1052	0.0147 1067	0.0136 7878	0.0127 1168	25
26	0.0145 6103	0.0134 9961	0.0125 0713	0.0115 8016	26
27	0.0134 2573	0.0124 0204	0.0114 4809	0.0105 6025	27
28	0.0123 9193	0.0114 0520	0.0104 8891	0.0096 3914	28
29	0.0114 4865	0.0104 9811	0.0096 1854	0.0088 0577	29
30	0.0105 8640	0.0096 7124	0.0088 2743	0.0080 5058	30
31	0.0097 9691	0.0089 1628	0.0081 0728	0.0073 6524	31
32	0.0090 7292	0.0082 2599	0.0074 5081	0.0067 4247	32
33	0.0084 0807	0.0075 9397	0.0068 5163	0.0061 7588	33
34	0.0077 9674	0.0070 1461	0.0063 0411	0.0056 5984	34
35	0.0072 3396	0.0064 8291	0.0058 0326	0.0051 8937	35
36	0.0067 1531	0.0059 9447	0.0053 4467	0.0047 6006	36
37	0.0062 3685	0.0055 4533	0.0049 2440	0.0043 6799	37
38	0.0057 9505	0.0051 3197	0.0045 3894	0.0040 0966	38
39	0.0053 8676	0.0047 5124	0.0041 8513	0.0036 8193	39
40	0.0050 0914	0.0044 0031	0.0038 6016	0.0033 8201	40
41	0.0046 5962	0.0040 7663	0.0035 6149	0.0031 0737	41
42	0.0043 3591	0.0037 7789	0.0032 8684	0.0028 5576	42
43	0.0040 3590	0.0035 0201	0.0030 3414	0.0026 2512	43
44	0.0037 5769	0.0032 4710	0.0028 0152	0.0024 1363	44
45	0.0034 9957	0.0030 1146	0.0025 8728	0.0022 1961	45
46	0.0032 5996	0.0027 9353	0.0023 8991	0.0020 4154	46
47	0.0030 3744	0.0025 9190	0.0022 0799	0.0018 7807	47
48	0.0028 3070	0.0024 0527	0.0020 4027	0.0017 2795	48
49	0.0026 3853	0.0022 3247	0.0018 8557	0.0015 9005	49
50	0.0024 5985	0.0020 7241	0.0017 4286	0.0014 6334	50

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s^{-1}_{\overline{n}|}$$

n	7%	7½%	8%	8½%	n
1	0.000 0000	0.000 0000	0.000 0000	0.000 0000	1
2	9.684 0297	9.682 9819	9.681 9367	9.680 8939	2
3	9.492 8325	9.490 7134	9.488 5980	9.486 4861	3
4	9.352 6226	9.349 4087	9.346 1980	9.342 9906	4
5	9.240 2764	9.235 9442	9.231 6134	9.227 2843	5
6	9.145 4942	9.140 0204	9.134 5449	9.129 0679	6
7	9.062 7820	9.056 1434	9.049 4986	9.042 8479	7
8	8.988 8610	8.981 0346	8.973 1960	8.965 3459	8
9	8.921 6161	8.912 5789	8.903 5225	8.894 4475	9
10	8.859 6036	8.849 3329	8.839 0346	8.828 7095	10
11	8.801 7939	8.790 2674	8.778 7035	8.767 1034	11
12	8.747 4272	8.734 6225	8.721 7695	8.708 8699	12
13	8.695 9267	8.681 8217	8.667 6566	8.653 4331	13
14	8.646 8441	8.631 4171	8.615 9169	8.600 3459	14
15	8.599 8244	8.583 0540	8.566 1964	8.549 2543	15
16	8.554 5818	8.536 4468	8.518 2095	8.499 8731	16
17	8.510 8825	8.491 3621	8.471 7233	8.451 9703	17
18	8.468 5335	8.447 6070	8.426 5454	8.405 3535	18
19	8.427 3727	8.405 0201	8.382 5146	8.359 8620	19
20	8.387 2639	8.363 4652	8.339 4953	8.315 3610	20
21	8.348 0906	8.322 8264	8.297 3720	8.271 7350	21
22	8.309 7530	8.283 0041	8.256 0455	8.228 8858	22
23	8.272 1649	8.243 9127	8.215 4305	8.186 7283	23
24	8.235 2511	8.205 4772	8.175 4527	8.145 1888	24
25	8.198 9461	8.167 6325	8.136 0474	8.104 2030	25
26	8.163 1920	8.130 3213	8.097 1576	8.063 7147	26
27	8.127 9380	8.093 4931	8.058 7333	8.023 6744	27
28	8.093 1389	8.057 1029	8.020 7302	7.984 0381	28
29	8.058 7544	8.021 1110	7.983 1089	7.944 7671	29
30	8.024 7485	7.985 4820	7.945 8345	7.905 8269	30
31	7.991 0889	7.950 1838	7.908 8754	7.867 1867	31
32	7.957 7469	7.915 1882	7.872 2037	7.828 8188	32
33	7.924 6961	7.880 4690	7.835 7941	7.790 6986	33
34	7.891 9130	7.846 0034	7.799 6238	7.752 8038	34
35	7.859 3761	7.811 7703	7.763 6724	7.715 1145	35
36	7.827 0660	7.777 7507	7.727 9212	7.677 6126	36
37	7.794 9651	7.743 9272	7.692 3535	7.640 2817	37
38	7.763 0573	7.710 2842	7.656 9541	7.603 1071	38
39	7.731 3277	7.676 8074	7 621 7089	7.566 0753	39
40	7.699 7631	7.643 4836	7.586 6054	7.529 1744	40
41	7.668 3509	7 610 3011	7 551 6322	7 492 3930	41
42	7 637 0800	7 577 2489	7 516 7787	7 455 7213	42
43	7 605 9400	7.544 3168	7.482 0352	7.419 1499	43
44	7.574 9211	7.511 4958	7.447 3930	7.382 6707	44
45	7.544 0148	7.478 7775	7.412 8442	7.346 2659	45
46	7.513 2129	7.446 1542	7.378 3813	7.309 9586	46
47	7.482 5080	7.413 6186	7.343 9976	7.273 7125	47
48	7.451 8931	7.381 1642	7.309 6868	7.237 5316	48
49	7.421 3719	7.348 7852	7.275 4434	7.201 4108	49
50	7.390 9085	7.316 4757	7.241 2621	7.165 3451	50

Annuity Whose Amount at Compound Interest is 1

$$s_{\overline{n}|}^{-1} = i/[(1+i)^n - 1]$$

n	7%	7½%	8%	8½%	n
51	0.0022 9365	0.0019 2411	0.0016 1116	0.0013 4688	51
52	0.0021 3901	0.0017 8668	0.0014 8959	0.0012 3983	52
53	0.0019 9509	0.0016 5927	0.0013 7735	0.0011 4139	53
54	0.0018 6110	0.0015 4112	0.0012 7370	0.0010 5087	54
55	0.0017 3633	0.0014 3155	0.0011 7796	0.0009 6761	55
56	0.0016 2011	0.0013 2991	0.0010 8952	0.0008 9101	56
57	0.0015 1183	0.0012 3559	0.0010 0780	0.0008 2053	57
58	0.0014 1093	0.0011 4807	0.0009 3227	0.0007 5568	58
59	0.0013 1689	0.0010 6683	0.0008 6247	0.0006 9599	59
60	0.0012 2923	0.0009 9142	0.0007 9795	0.0006 4106	60
61	0.0011 4749	0.0009 2140	0.0007 3830	0.0005 9049	61
62	0.0010 7127	0.0008 5638	0.0006 8314	0.0005 4393	62
63	0.0010 0019	0.0007 9600	0.0006 3214	0.0005 0107	63
64	0.0009 3388	0.0007 3992	0.0005 8497	0.0004 6160	64
65	0.0008 7203	0.0006 8782	0.0005 4135	0.0004 2526	65
66	0.0008 1431	0.0006 3942	0.0005 0100	0.0003 9179	66
67	0.0007 6046	0.0005 9446	0.0004 6367	0.0003 6097	67
68	0.0007 1021	0.0005 5268	0.0004 2914	0.0003 3258	68
69	0.0006 6331	0.0005 1386	0.0003 9719	0.0003 0643	69
70	0.0006 1953	0.0004 7778	0.0003 6764	0.0002 8234	70
71	0.0005 7866	0.0004 4425	0.0003 4029	0.0002 6016	71
72	0.0005 4051	0.0004 1308	0.0003 1498	0.0002 3972	72
73	0.0005 0490	0.0003 8412	0.0002 9157	0.0002 2089	73
74	0.0004 7164	0.0003 5719	0.0002 6989	0.0002 0354	74
75	0.0004 4060	0.0003 3216	0.0002 4984	0.0001 8756	75
76	0.0004 1160	0.0003 0889	0.0002 3128	0.0001 7284	76
77	0.0003 8453	0.0002 8726	0.0002 1410	0.0001 5927	77
78	0.0003 5924	0.0002 6714	0.0001 9820	0.0001 4677	78
79	0.0003 3563	0.0002 4844	0.0001 8349	0.0001 3526	79
80	0.0003 1357	0.0002 3106	0.0001 6987	0.0001 2465	80
81	0.0002 9297	0.0002 1489	0.0001 5726	0.0001 1487	81
82	0.0002 7373	0.0001 9986	0.0001 4559	0.0001 0586	82
83	0.0002 5576	0.0001 8588	0.0001 3479	0.0000 9756	83
84	0.0002 3897	0.0001 7288	0.0001 2479	0.0000 8990	84
85	0.0002 2329	0.0001 6079	0.0001 1553	0.0000 8285	85
86	0.0002 0863	0.0001 4955	0.0001 0696	0.0000 7636	86
87	0.0001 9495	0.0001 3910	0.0000 9903	0.0000 7037	87
88	0.0001 8216	0.0001 2938	0.0000 9168	0.0000 6485	88
89	0.0001 7021	0.0001 2034	0.0000 8489	0.0000 5977	89
90	0.0001 5905	0.0001 1193	0.0000 7859	0.0000 5508	90
91	0.0001 4863	0.0001 0411	0.0000 7277	0.0000 5077	91
92	0.0001 3888	0.0000 9684	0.0000 6737	0.0000 4679	92
93	0.0001 2978	0.0000 9007	0.0000 6238	0.0000 4312	93
94	0.0001 2128	0.0000 8378	0.0000 5775	0.0000 3974	94
95	0.0001 1333	0.0000 7793	0.0000 5347	0.0000 3663	95
96	0.0001 0590	0.0000 7249	0.0000 4951	0.0000 3375	96
97	0.0000 9897	0.0000 6743	0.0000 4584	0.0000 3111	97
98	0.0000 9248	0.0000 6272	0.0000 4244	0.0000 2867	98
99	0.0000 8643	0.0000 5834	0.0000 3930	0.0000 2642	99
100	0.0000 8076	0.0000 5427	0.0000 3638	0.0000 2435	100

Logarithm of Annuity Whose Amount at Compound Interest is 1

$$\log s_{\overline{n}|}^{-1}$$

n	7%	7½%	8%	8½%	n
51	7.360 5275	7.284 2309	7.207 1380	7.129 3300	51
52	7.330 2138	7.252 0457	7.173 0668	7.093 3615	52
53	7.299 9627	7.219 9160	7.139 0445	7.057 4358	53
54	7.269 7700	7.187 8378	7.105 0673	7.021 5494	54
55	7.239 6314	7.155 8071	7.071 1316	6.985 6992	55
56	7.209 5434	7.123 8207	7.037 2344	6.949 8823	56
57	7.179 5027	7.091 8753	7.003 3727	6.914 0962	57
58	7.149 5056	7.059 9680	6.969 5439	6.878 3381	58
59	7.119 5496	7.028 0959	6.935 7454	6.842 6060	59
60	7.089 6316	6.996 2567	6.901 9750	6.806 8977	60
61	7.059 7492	6.964 4479	6.868 2305	6.771 2115	61
62	7.029 8999	6.932 6673	6.834 5100	6.735 5455	62
63	7.000 0815	6.900 9130	6.800 8116	6.699 8980	63
64	6.970 2919	6.869 1831	6.767 1337	6.664 2678	64
65	6.940 5293	6.837 4758	6.733 4748	6.628 6533	65
66	6.910 7918	6.805 7896	6.699 8334	6.593 0534	66
67	6.881 0776	6.774 1229	6.666 2082	6.557 4669	67
68	6.851 3852	6.742 4743	6.632 5981	6.521 8927	68
69	6.821 7134	6.710 8426	6.599 0018	6.486 3298	69
70	6.792 0604	6.679 2266	6.565 4183	6.450 7775	70
71	6.762 4252	6.647 6252	6.531 8467	6.415 2347	71
72	6.732 8066	6.616 0373	6.498 2862	6.379 7008	72
73	6.703 2035	6.584 4620	6.464 7358	6.344 1752	73
74	6.673 6149	6.552 8983	6.431 1948	6.308 6570	74
75	6.644 0397	6.521 3455	6.397 6625	6.273 1458	75
76	6.614 4771	6.489 8029	6.364 1383	6.237 6410	76
77	6.584 9264	6.458 2697	6.330 6215	6.202 1421	77
78	6.555 3865	6.426 7453	6.297 1117	6.166 6487	78
79	6.525 8569	6.395 2288	6.263 6083	6.131 1602	79
80	6.496 3370	6.363 7200	6.230 1107	6.095 6762	80
81	6.466 8259	6.332 2182	6.196 6187	6.060 1965	81
82	6.437 3233	6.300 7230	6.163 1317	6.024 7209	82
83	6.407 8284	6.269 2338	6.129 6494	5.989 2488	83
84	6.378 3408	6.237 7502	6.096 1714	5.953 7801	84
85	6.348 8600	6.206 2719	6.062 6975	5.918 3143	85
86	6.319 3856	6.174 7985	6.029 2273	5.882 8514	86
87	6.289 9172	6.143 3296	5.995 7605	5.847 3911	87
88	6.260 4543	6.111 8650	5.962 2970	5.811 9332	88
89	6.230 9966	6.080 4042	5.928 8363	5.776 4775	89
90	6.201 5437	6.048 9471	5.895 3784	5.741 0239	90
91	6.172 0954	6.017 4935	5.861 9231	5.705 5721	91
92	6.142 6513	5.986 0429	5.828 4701	5.670 1220	92
93	6.113 2111	5.954 5954	5.795 0192	5.634 6735	93
94	6.083 7747	5.923 1505	5.761 5704	5.599 2265	94
95	6.054 3417	5.891 7081	5.728 1234	5.563 7809	95
96	6.024 9119	5.860 2683	5.694 6781	5.528 3365	96
97	5.995 4852	5.828 8305	5.661 2345	5.492 8933	97
98	5.966 9612	5.797 3948	5.627 7923	5.457 4510	98
99	5.936 6399	5.765 9609	5.594 3514	5.422 0098	99
100	5.907 2211	5.734 5290	5.560 9120	5.386 5695	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	1.0025 0000	1.0029 1667	1.0033 3333	1.0041 6667	1
2	0.5018 7578	0.5021 8856	0.5025 0139	0.5031 2717	2
3	0.3350 0139	0.3352 7967	0.3355 5802	0.3361 1496	3
4	0.2515 6445	0.2518 2557	0.2520 8680	0.2526 0958	4
5	0.2015 0250	0.2017 5340	0.2020 0444	0.2025 0693	5
6	0.1681 2803	0.1683 7219	0.1686 1650	0.1691 0564	6
7	0.1442 8928	0.1445 2866	0.1447 6824	0.1452 4800	7
8	0.1264 1035	0.1266 4620	0.1268 8228	0.1273 5512	8
9	0.1125 0462	0.1127 3777	0.1129 7118	0.1134 3876	9
10	0.1013 8015	0.1016 1117	0.1018 4248	0.1023 0596	10
11	0.0922 7840	0.0925 0772	0.0927 3736	0.0931 9757	11
12	0.0846 9370	0.0849 2163	0.0851 4990	0.0856 0748	12
13	0.0782 7595	0.0785 0274	0.0787 2989	0.0791 8532	13
14	0.0727 7510	0.0730 0093	0.0732 2716	0.0736 8082	14
15	0.0680 0777	0.0682 3279	0.0684 5825	0.0689 1045	15
16	0.0638 3642	0.0640 6076	0.0642 8557	0.0647 3655	16
17	0.0601 5587	0.0603 7964	0.0606 0389	0.0610 5387	17
18	0.0568 8433	0.0571 0761	0.0573 3140	0.0577 8053	18
19	0.0539 5722	0.0541 8008	0.0544 0348	0.0548 5191	19
20	0.0513 2288	0.0515 4537	0.0517 6844	0.0522 1630	20
21	0.0489 3947	0.0491 6166	0.0493 8445	0.0498 3183	21
22	0.0467 7278	0.0469 9471	0.0472 1726	0.0476 6427	22
23	0.0447 9455	0.0450 1625	0.0452 3861	0.0456 8531	23
24	0.0429 8121	0.0432 0272	0.0434 2492	0.0438 7139	24
25	0.0413 1298	0.0415 3433	0.0417 5640	0.0422 0270	25
26	0.0397 7312	0.0399 9434	0.0402 1630	0.0406 6247	26
27	0.0383 4736	0.0385 6847	0.0387 9035	0.0392 3645	27
28	0.0370 2347	0.0372 4450	0.0374 6632	0.0379 1239	28
29	0.0357 9093	0.0360 1188	0.0362 3367	0.0366 7974	29
30	0.0346 4059	0.0348 6149	0.0350 8325	0.0355 2936	30
31	0.0335 6449	0.0337 8536	0.0340 0712	0.0344 5330	31
32	0.0325 5569	0.0327 7653	0.0329 9830	0.0334 4458	32
33	0.0316 0806	0.0318 2889	0.0320 5067	0.0324 9708	33
34	0.0307 1620	0.0309 3703	0.0311 5885	0.0316 0540	34
35	0.0298 7533	0.0300 9618	0.0303 1803	0.0307 6476	35
36	0.0290 8121	0.0293 0208	0.0295 2399	0.0299 7090	36
37	0.0283 3004	0.0285 5094	0.0287 7291	0.0292 2003	37
38	0.0276 1843	0.0278 3938	0.0280 6141	0.0285 0875	38
39	0.0269 4335	0.0271 6434	0.0273 8644	0.0278 3402	39
40	0.0263 0204	0.0265 2308	0.0267 4527	0.0271 9310	40
41	0.0256 9204	0.0259 1315	0.0261 3543	0.0263 8352	41
42	0.0251 1112	0.0253 3229	0.0255 5466	0.0260 0303	42
43	0.0245 5724	0.0247 7848	0.0250 0095	0.0254 4961	43
44	0.0240 2855	0.0242 4987	0.0244 7246	0.0249 2141	44
45	0.0235 2339	0.0237 4479	0.0239 6749	0.0244 1675	45
46	0.0230 4022	0.0232 6170	0.0234 8451	0.0239 3409	46
47	0.0225 7762	0.0227 9920	0.0230 2213	0.0234 7204	47
48	0.0221 3433	0.0223 5600	0.0225 7905	0.0230 2929	48
49	0.0217 0915	0.0219 3092	0.0221 5410	0.0226 0468	49
50	0.0213 0099	0.0215 2287	0.0217 4618	0.0221 9711	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}|}^{-1}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
1	0.001 0844	0.001 2648	0.001 4453	0.001 8058	1
2	9.700 5963	9.700 8668	9.701 1373	9.701 6778	2
3	9.525 0466	9.525 4072	9.525 7677	9.526 4878	3
4	9.400 6492	9.401 0998	9.401 5501	9.402 4498	4
5	9.304 2804	9.304 8209	9.305 3609	9.306 4399	5
6	9.225 6401	9.226 2703	9.226 9001	9.228 1581	6
7	9.159 2341	9.159 9540	9.160 6733	9.162 1102	7
8	9.101 7826	9.102 5922	9.103 4009	9.105 0164	8
9	9.051 1703	9.052 0695	9.052 9677	9.054 7615	9
10	9.005 9529	9.006 9415	9.007 9290	9.009 9009	10
11	8.965 1000	8.966 1780	8.967 2547	8.969 4046	11
12	8.927 8511	8.929 0183	8.930 1842	8.932 5117	12
13	8.893 6284	8.894 8859	8.896 1397	8.898 6447	13
14	8.861 9829	8.863 3284	8.864 6722	8.867 3544	14
15	8.832 5585	8.833 9931	8.835 4258	8.838 2851	15
16	8.805 0685	8.806 5921	8.808 1135	8.811 1496	16
17	8.779 2780	8.780 8905	8.782 5005	8.785 7132	17
18	8.754 9926	8.756 6940	8.758 3925	8.761 7816	18
19	8.732 0496	8.733 8397	8.735 6267	8.739 1918	19
20	8.710 3110	8.712 1897	8.714 0651	8.717 8061	20
21	8.689 6593	8.691 6265	8.693 5902	8.697 5068	21
22	8.669 9932	8.672 0490	8.674 1008	8.678 1929	22
23	8.651 2252	8.653 3693	8.655 5093	8.659 7766	23
24	8.633 2787	8.635 5111	8.637 7391	8.642 1814	24
25	8.616 0866	8.618 4073	8.620 7231	8.625 3402	25
26	8.599 5897	8.601 9985	8.604 4021	8.609 1938	26
27	8.583 7355	8.586 2324	8.588 7237	8.593 6987	27
28	8.568 4772	8.571 0621	8.573 6411	8.578 7812	28
29	8.553 7730	8.556 4458	8.559 1123	8.564 4263	29
30	8.539 5852	8.542 3459	8.545 0998	8.550 5874	30
31	8.525 8801	8.528 7286	8.531 5698	8.537 2308	31
32	8.512 6269	8.515 5630	8.518 4915	8.524 3257	32
33	8.499 7978	8.502 8215	8.505 8372	8.511 8444	33
34	8.487 3675	8.490 4787	8.493 5814	8.499 7613	34
35	8.475 3127	8.478 5114	8.481 7010	8.488 0535	35
36	8.462 6124	8.466 8985	8.470 1750	8.476 6998	36
37	8.452 2472	8.455 6205	8.458 9837	8.465 6806	37
38	8.441 1991	8.444 6595	8.448 1094	8.454 9782	38
39	8.430 4515	8.433 0001	8.437 5357	8.444 5760	39
40	8.419 9895	8.423 6240	8.427 7471	8.434 4588	40
41	8.409 7987	8.413 5201	8.417 2296	8.424 6125	41
42	8.399 8660	8.403 6744	8.407 4702	8.415 0240	42
43	8.390 1795	8.394 0746	8.397 9566	8.405 6812	43
44	8.380 7276	8.384 7094	8.388 6776	8.396 5726	44
45	8.371 5000	8.375 5684	8.379 6225	8.387 6789	45
46	8.362 4866	8.366 6416	8.370 7815	8.379 0160	46
47	8.353 6782	8.357 9197	8.362 1456	8.370 5508	47
48	8.345 0663	8.349 3941	8.353 7057	8.362 2806	48
49	8.336 6428	8.341 0568	8.345 4541	8.354 1983	49
50	8.328 3998	8.332 9001	8.337 3830	8.346 2964	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	0.0209 0886	0.0211 3085	0.0213 5429	0.0218 0557	51
52	0.0205 3184	0.0207 5393	0.0209 7751	0.0214 2916	52
53	0.0201 6906	0.0203 9126	0.0206 1499	0.0210 6700	53
54	0.0198 1974	0.0200 4205	0.0202 6592	0.0207 1830	54
55	0.0194 8314	0.0197 0557	0.0199 2958	0.0203 8234	55
56	0.0191 5858	0.0193 8113	0.0196 0529	0.0200 5843	56
57	0.0188 4542	0.0190 6810	0.0192 9241	0.0197 4593	57
58	0.0185 4308	0.0187 6588	0.0189 9035	0.0194 4426	58
59	0.0182 5101	0.0184 7394	0.0186 9856	0.0191 5287	59
60	0.0179 6869	0.0181 9175	0.0184 1652	0.0188 7123	60
61	0.0176 9564	0.0179 1883	0.0181 4377	0.0185 9888	61
62	0.0174 3142	0.0176 5474	0.0178 7984	0.0183 3536	62
63	0.0171 7561	0.0173 9906	0.0176 2432	0.0180 8025	63
64	0.0169 2780	0.0171 5139	0.0173 7681	0.0178 3315	64
65	0.0166 8764	0.0169 1136	0.0171 3695	0.0175 9371	65
66	0.0164 5476	0.0166 7863	0.0169 0438	0.0173 6156	66
67	0.0162 2886	0.0164 5286	0.0166 7878	0.0171 3639	67
68	0.0160 0961	0.0162 3376	0.0164 5985	0.0169 1788	68
69	0.0157 9674	0.0160 2102	0.0162 4729	0.0167 0574	69
70	0.0155 8996	0.0158 1439	0.0160 4083	0.0164 9971	70
71	0.0153 8902	0.0156 1359	0.0158 4021	0.0162 9952	71
72	0.0151 9368	0.0154 1840	0.0156 4518	0.0161 0493	72
73	0.0150 0370	0.0152 2857	0.0154 5553	0.0159 1572	73
74	0.0148 1887	0.0150 4389	0.0152 7103	0.0157 3165	74
75	0.0146 3898	0.0148 6415	0.0150 9147	0.0155 5253	75
76	0.0144 6385	0.0146 8916	0.0149 1666	0.0153 7816	76
77	0.0142 9327	0.0145 1974	0.0147 4641	0.0152 0836	77
78	0.0141 2708	0.0143 5270	0.0145 8056	0.0150 4295	78
79	0.0139 6511	0.0141 9089	0.0144 1892	0.0148 8177	79
80	0.0138 0721	0.0140 3313	0.0142 6135	0.0147 2464	80
81	0.0136 5321	0.0138 7929	0.0141 0770	0.0145 7144	81
82	0.0135 0298	0.0137 2922	0.0139 5781	0.0144 2200	82
83	0.0133 5639	0.0135 8278	0.0138 1156	0.0142 7620	83
84	0.0132 1330	0.0134 3985	0.0136 6881	0.0141 3391	84
85	0.0130 7359	0.0133 0030	0.0135 2944	0.0139 9500	85
86	0.0129 3714	0.0131 6400	0.0133 9333	0.0138 5935	86
87	0.0128 0384	0.0130 3086	0.0132 6038	0.0137 2685	87
88	0.0126 7357	0.0129 0076	0.0131 3046	0.0135 9740	88
89	0.0125 4625	0.0127 7360	0.0130 0349	0.0134 7088	89
90	0.0124 2177	0.0126 4928	0.0128 7936	0.0133 4721	90
91	0.0123 0004	0.0125 2770	0.0127 5797	0.0132 2629	91
92	0.0121 8096	0.0124 0879	0.0126 3925	0.0131 0803	92
93	0.0120 6446	0.0122 9245	0.0125 2310	0.0129 9234	93
94	0.0119 5044	0.0121 7860	0.0124 0944	0.0128 7915	94
95	0.0118 3884	0.0120 6716	0.0122 9819	0.0127 6837	95
96	0.0117 2957	0.0119 5805	0.0121 8928	0.0126 5992	96
97	0.0116 2257	0.0118 5121	0.0120 8263	0.0125 5374	97
98	0.0115 1776	0.0117 4657	0.0119 7818	0.0124 4976	98
99	0.0114 1508	0.0116 4405	0.0118 7585	0.0123 4790	99
100	0.0113 1446	0.0115 4360	0.0117 7559	0.0122 4811	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
51	8.320 3305	8.324 9169	8.329 4852	8.338 5674	51
52	8.312 4279	8.317 1003	8.321 7540	8.331 0050	52
53	8.304 6857	8.309 4441	8.314 1831	8.323 6026	53
54	8.297 0979	8.301 9423	8.306 7663	8.316 3542	54
55	8.289 6589	8.294 5890	8.299 4982	8.309 2541	55
56	8.282 3632	8.287 3791	8.292 3733	8.302 2970	56
57	8.275 2058	8.280 3074	8.285 3865	8.295 4777	57
58	8.268 1819	8.273 3690	8.278 5329	8.288 7915	58
59	8.261 2869	8.266 5594	8.271 8081	8.282 2338	59
60	8.254 5164	8.259 8744	8.265 2076	8.275 8003	60
61	8.247 8664	8.253 3096	8.258 7274	8.269 4868	61
62	8.241 3329	8.246 8613	8.252 3635	8.263 2894	62
63	8.234 9121	8.240 5257	8.246 1123	8.257 2044	63
64	8.228 6005	8.234 2992	8.239 9701	8.251 2282	64
65	8.222 3948	8.228 1785	8.233 9335	8.245 3574	65
66	8.216 2916	8.222 1602	8.227 9993	8.239 5888	66
67	8.210 2880	8.216 2414	8.222 1644	8.233 9192	67
68	8.204 3808	8.210 4190	8.216 4259	8.228 3459	68
69	8.198 5674	8.204 6903	8.210 7809	8.222 8658	69
70	8.192 8450	8.199 0524	8.205 2267	8.217 4763	70
71	8.187 2109	8.193 5029	8.199 7608	8.212 1749	71
72	8.181 6628	8.188 0392	8.194 3806	8.206 9590	72
73	8.176 1983	8.182 6580	8.189 0839	8.201 8261	73
74	8.170 8151	8.177 3601	8.183 8682	8.196 7743	74
75	8.165 5110	8.172 1401	8.178 7315	8.191 8011	75
76	8.160 2838	8.166 9970	8.173 6715	8.186 9045	76
77	8.155 1316	8.161 9289	8.168 6863	8.182 0825	77
78	8.150 0524	8.156 9337	8.163 7741	8.177 3331	78
79	8.145 0444	8.152 0095	8.158 9328	8.172 6545	79
80	8.140 1058	8.147 1547	8.154 1607	8.168 0448	80
81	8.135 2348	8.142 3673	8.149 4561	8.163 5024	81
82	8.130 4298	8.137 6460	8.144 8172	8.159 0256	82
83	8.125 6892	8.132 9888	8.140 2425	8.154 6128	83
84	8.121 0113	8.128 3944	8.135 7306	8.150 2623	84
85	8.116 3958	8.123 8613	8.131 2798	8.145 9728	85
86	8.111 8382	8.119 3880	8.126 8886	8.141 7428	86
87	8.107 3400	8.114 9731	8.122 5558	8.137 5708	87
88	8.102 8991	8.110 6152	8.118 2800	8.133 4558	88
89	8.098 5140	8.106 3132	8.114 0599	8.129 3960	89
90	8.094 1835	8.102 0657	8.109 8942	8.125 3905	90
91	8.089 9064	8.097 8715	8.105 7817	8.121 4381	91
92	8.085 6816	8.093 7294	8.101 7213	8.117 5375	92
93	8.081 5077	8.089 6384	8.097 7118	8.113 6875	93
94	8.077 3840	8.085 5973	8.093 7521	8.109 8871	94
95	8.073 3091	8.081 6059	8.089 8411	8.106 1353	95
96	8.069 2821	8.077 6605	8.085 9778	8.102 4310	96
97	8.065 3021	8.073 7628	8.082 1614	8.098 7732	97
98	8.061 3680	8.069 9110	8.078 3906	8.095 1609	98
99	8.057 4788	8.066 1041	8.074 6648	8.091 5932	99
100	8.053 6338	8.062 3413	8.070 9828	8.088 0692	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	0.0112 1584	0.0114 4515	0.0116 7734	0.0121 5033	101
102	0.0111 1917	0.0113 4864	0.0115 8103	0.0120 5449	102
103	0.0110 2439	0.0112 5403	0.0114 8660	0.0119 6054	103
104	0.0109 3144	0.0111 6124	0.0113 9401	0.0118 6842	104
105	0.0108 4027	0.0110 7024	0.0113 0320	0.0117 7809	105
106	0.0107 5083	0.0109 8096	0.0112 1413	0.0116 8948	106
107	0.0106 6307	0.0108 9337	0.0111 2673	0.0116 0256	107
108	0.0105 7694	0.0108 0741	0.0110 4097	0.0115 1727	108
109	0.0104 9241	0.0107 2305	0.0109 5680	0.0114 3358	109
110	0.0104 0942	0.0106 4023	0.0108 7417	0.0113 5143	110
111	0.0103 2793	0.0105 5891	0.0107 9306	0.0112 7079	111
112	0.0102 4791	0.0104 7906	0.0107 1340	0.0111 9161	112
113	0.0101 6932	0.0104 0064	0.0106 3518	0.0111 1386	113
114	0.0100 9211	0.0103 2360	0.0105 5834	0.0110 3750	114
115	0.0100 1625	0.0102 4792	0.0104 8285	0.0109 6249	115
116	0.0099 4172	0.0101 7355	0.0104 0868	0.0108 8880	116
117	0.0098 6846	0.0101 0046	0.0103 3579	0.0108 1639	117
118	0.0097 9646	0.0100 2863	0.0102 6416	0.0107 4524	118
119	0.0097 2567	0.0099 5801	0.0101 9374	0.0106 7530	119
120	0.0096 5608	0.0098 8859	0.0101 2451	0.0106 0655	120
121	0.0095 8764	0.0098 2032	0.0100 5645	0.0105 3896	121
122	0.0095 2033	0.0097 5318	0.0099 8951	0.0104 7251	122
123	0.0094 5412	0.0096 8715	0.0099 2367	0.0104 0715	123
124	0.0093 8899	0.0096 2219	0.0098 5892	0.0103 4288	124
125	0.0093 2491	0.0095 5828	0.0097 9521	0.0102 7965	125
126	0.0092 6186	0.0094 9540	0.0097 3253	0.0102 1745	126
127	0.0091 9981	0.0094 3352	0.0096 7085	0.0101 5625	127
128	0.0091 3873	0.0093 7262	0.0096 1015	0.0100 9603	128
129	0.0090 7861	0.0093 1267	0.0095 5040	0.0100 3677	129
130	0.0090 1942	0.0092 5366	0.0094 9159	0.0099 7844	130
131	0.0089 6115	0.0091 9556	0.0094 3368	0.0099 2102	131
132	0.0089 0376	0.0091 3834	0.0093 7667	0.0098 6449	132
133	0.0088 4725	0.0090 8200	0.0093 2053	0.0098 0883	133
134	0.0087 9159	0.0090 2651	0.0092 6524	0.0097 5403	134
135	0.0087 3675	0.0089 7186	0.0092 1079	0.0097 0005	135
136	0.0086 8274	0.0089 1801	0.0091 5715	0.0096 4689	136
137	0.0086 2952	0.0088 6497	0.0091 0430	0.0095 9453	137
138	0.0085 7707	0.0088 1270	0.0090 5223	0.0095 4295	138
139	0.0085 2539	0.0087 6119	0.0090 0093	0.0094 9213	139
140	0.0084 7446	0.0087 1043	0.0089 5037	0.0094 4205	140
141	0.0084 2425	0.0086 6040	0.0089 0054	0.0093 9271	141
142	0.0083 7476	0.0086 1109	0.0088 5143	0.0093 4408	142
143	0.0083 2597	0.0085 6247	0.0088 0301	0.0092 9615	143
144	0.0082 7787	0.0085 1454	0.0087 5528	0.0092 4890	144
145	0.0082 3043	0.0084 6728	0.0087 0822	0.0092 0233	145
146	0.0081 8365	0.0084 2067	0.0086 6182	0.0091 5641	146
147	0.0081 3752	0.0083 7471	0.0086 1607	0.0091 1114	147
148	0.0080 9201	0.0083 2938	0.0085 7094	0.0090 6650	148
149	0.0080 4712	0.0082 8467	0.0085 2643	0.0090 2247	149
150	0.0080 0284	0.0082 4056	0.0084 8252	0.0089 7905	150

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{n|}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
101	8.049 8319	8.058 6215	8.067 3438	8.084 5880	101
102	8.046 0725	8.054 9439	8.063 7470	8.081 1488	102
103	8.042 3545	8.051 3079	8.060 1916	8.077 7507	103
104	8.038 6773	8.047 7125	8.056 6767	8.074 3929	104
105	8.035 0399	8.044 1569	8.053 2016	8.071 0747	105
106	8.031 4418	8.040 6405	8.049 7654	8.067 7952	106
107	8.027 8821	8.037 1623	8.046 3675	8.064 5538	107
108	8.024 3600	8.033 7218	8.043 0071	8.061 3497	108
109	8.020 8751	8.030 3183	8.039 6837	8.058 1822	109
110	8.017 4264	8.026 9509	8.036 3963	8.055 0506	110
111	8.014 0134	8.023 6192	8.033 1445	8.051 9543	111
112	8.010 6354	8.020 3224	8.029 9275	8.048 8927	112
113	8.007 2918	8.017 0599	8.026 7447	8.045 8650	113
114	8.003 9820	8.013 8311	8.023 5955	8.042 8707	114
115	8.000 7054	8.010 6355	8.020 4793	8.039 9092	115
116	7.997 4614	8.007 4724	8.017 3956	8.036 9800	116
117	7.994 2496	8.004 3413	8.014 3438	8.034 0824	117
118	7.991 0691	8.001 2416	8.011 3233	8.031 2160	118
119	7.987 9196	7.998 1726	8.008 3336	8.028 3800	119
120	7.984 8006	7.995 1342	8.005 3741	8.025 5742	120
121	7.981 7115	7.992 1257	8.002 4445	8.022 7979	121
122	7.978 6519	7.989 1463	7.999 5441	8.020 0506	122
123	7.975 6212	7.986 1960	7.996 6724	8.017 3319	123
124	7.972 6190	7.983 2740	7.993 8292	8.014 6413	124
125	7.969 6448	7.980 3800	7.991 0137	8.011 9783	125
126	7.966 6982	7.977 5134	7.988 2257	8.009 3425	126
127	7.963 7788	7.974 6739	7.985 4646	8.006 7335	127
128	7.960 8860	7.971 8611	7.982 7300	8.004 1507	128
129	7.958 0194	7.969 0744	7.980 0215	8.001 5938	129
130	7.955 1789	7.966 3135	7.977 3387	7.999 0624	130
131	7.952 3637	7.963 5780	7.974 6813	7.996 5562	131
132	7.949 5736	7.960 8675	7.972 0487	7.994 0746	132
133	7.946 8083	7.958 1817	7.969 4407	7.991 6173	133
134	7.944 0672	7.955 5200	7.966 8568	7.989 1839	134
135	7.941 3502	7.952 8824	7.964 2968	7.986 7741	135
136	7.938 6566	7.950 2681	7.961 7601	7.984 3875	136
137	7.935 9865	7.947 6771	7.959 2466	7.982 0238	137
138	7.933 3392	7.945 1089	7.956 7557	7.979 6827	138
139	7.930 7145	7.942 5632	7.954 2873	7.977 3637	139
140	7.928 1120	7.940 0397	7.951 8410	7.975 0665	140
141	7.925 5315	7.937 5380	7.949 4194	7.972 7909	141
142	7.922 9726	7.935 0579	7.947 0133	7.970 5366	142
143	7.920 4350	7.932 5990	7.944 6314	7.968 3031	143
144	7.917 9184	7.930 1611	7.942 2702	7.966 0903	144
145	7.915 4226	7.927 7437	7.939 9296	7.963 8978	145
146	7.912 9472	7.925 3468	7.937 6093	7.961 7253	146
147	7.910 4919	7.922 9699	7.935 3089	7.959 5727	147
148	7.908 0565	7.920 6128	7.933 0283	7.957 4395	148
149	7.905 6407	7.918 2753	7.930 7671	7.955 3255	149
150	7.903 2442	7.915 9569	7.928 5251	7.953 2305	150

Annuity Whose Present Value at Compound Interest is 1

$$a^{-1}_{\overline{n}|} = i/(1-v^n)$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	0.0079 5915	0.0081 9705	0.0084 3921	0.0089 3623	151
152	0.0079 1605	0.0081 5412	0.0083 9648	0.0088 9398	152
153	0.0078 7351	0.0081 1176	0.0083 5432	0.0088 5231	153
154	0.0078 3153	0.0080 6995	0.0083 1273	0.0088 1119	154
155	0.0077 9010	0.0080 2870	0.0082 7167	0.0087 7063	155
156	0.0077 4921	0.0079 8798	0.0082 3116	0.0087 3060	156
157	0.0077 0885	0.0079 4780	0.0081 9118	0.0086 9110	157
158	0.0076 6900	0.0079 0813	0.0081 5171	0.0086 5211	158
159	0.0076 2966	0.0078 6896	0.0081 1275	0.0086 1364	159
160	0.0075 9082	0.0078 3030	0.0080 7429	0.0085 7566	160
161	0.0075 5246	0.0077 9212	0.0080 3631	0.0085 3817	161
162	0.0075 1459	0.0077 5442	0.0079 9882	0.0085 0116	162
163	0.0074 7719	0.0077 1720	0.0079 6180	0.0084 6462	163
164	0.0074 4025	0.0076 0844	0.0079 2524	0.0084 2855	164
165	0.0074 0377	0.0076 4413	0.0078 8913	0.0083 9293	165
166	0.0073 6773	0.0076 0826	0.0078 5347	0.0083 5775	166
167	0.0073 3213	0.0075 7284	0.0078 1825	0.0083 2302	167
168	0.0072 9695	0.0075 3784	0.0077 8346	0.0082 8871	168
169	0.0072 6220	0.0075 0327	0.0077 4909	0.0082 5482	169
170	0.0072 2787	0.0074 6911	0.0077 1513	0.0082 2135	170
171	0.0071 9394	0.0074 3536	0.0076 8158	0.0081 8829	171
172	0.0071 6042	0.0074 0201	0.0076 4844	0.0081 5563	172
173	0.0071 2728	0.0073 6905	0.0076 1568	0.0081 2336	173
174	0.0070 9454	0.0073 3648	0.0075 8332	0.0080 9147	174
175	0.0070 6217	0.0073 0429	0.0075 5133	0.0080 5997	175
176	0.0070 3018	0.0072 7248	0.0075 1972	0.0080 2884	176
177	0.0069 9855	0.0072 4103	0.0074 8847	0.0079 9808	177
178	0.0069 6729	0.0072 0994	0.0074 5759	0.0079 6768	178
179	0.0069 3638	0.0071 7921	0.0074 2706	0.0079 3763	179
180	0.0069 0582	0.0071 4883	0.0073 9688	0.0079 0794	180
181	0.0068 7560	0.0071 1879	0.0073 6704	0.0078 7858	181
182	0.0068 4572	0.0070 8908	0.0073 3754	0.0078 4957	182
183	0.0068 1617	0.0070 5971	0.0073 0838	0.0078 2088	183
184	0.0067 8695	0.0070 3067	0.0072 7954	0.0077 9253	184
185	0.0067 5805	0.0070 0195	0.0072 5102	0.0077 6449	185
186	0.0067 2947	0.0069 7354	0.0072 2281	0.0077 3677	186
187	0.0067 0120	0.0069 4545	0.0071 9492	0.0077 0936	187
188	0.0066 7323	0.0069 1766	0.0071 6734	0.0076 8226	188
189	0.0066 4557	0.0068 9017	0.0071 4005	0.0076 5546	189
190	0.0066 1820	0.0068 6298	0.0071 1307	0.0076 2895	190
191	0.0065 9112	0.0068 3608	0.0070 8637	0.0076 0274	191
192	0.0065 6434	0.0068 0947	0.0070 5996	0.0075 7681	192
193	0.0065 3783	0.0067 8314	0.0070 3384	0.0075 5117	193
194	0.0065 1160	0.0067 5708	0.0070 0799	0.0075 2580	194
195	0.0064 8565	0.0067 3131	0.0069 8242	0.0075 0071	195
196	0.0064 5997	0.0067 0581	0.0069 5711	0.0074 7589	196
197	0.0064 3455	0.0066 8057	0.0069 3208	0.0074 5133	197
198	0.0064 0939	0.0066 5559	0.0069 0730	0.0074 2704	198
199	0.0063 8450	0.0066 3087	0.0068 8278	0.0074 0300	199
200	0.0063 5985	0.0066 0640	0.0068 5852	0.0073 7922	200

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_n^{-1}$$

n	$\frac{1}{4}\%$	$\frac{7}{24}\%$	$\frac{1}{3}\%$	$\frac{5}{12}\%$	n
151	7.900 8669	7.913 6576	7.926 3019	7.951 1541	151
152	7.898 5083	7.911 3771	7.924 0974	7.949 0962	152
153	7.896 1684	7.909 1150	7.921 9113	7.947 0565	153
154	7.893 8467	7.906 7811	7.919 7435	7.945 0347	154
155	7.891 5432	7.904 6453	7.917 5934	7.943 0306	155
156	7.889 2574	7.902 4373	7.915 4611	7.941 0439	156
157	7.886 9894	7.900 2467	7.913 3462	7.939 0745	157
158	7.884 7387	7.898 0736	7.911 2486	7.937 1222	158
159	7.882 5050	7.895 9174	7.909 1679	7.935 1866	159
160	7.880 2885	7.893 7782	7.907 1041	7.933 2675	160
161	7.878 0887	7.891 6557	7.905 0568	7.931 3648	161
162	7.875 9055	7.889 5496	7.903 0258	7.929 4783	162
163	7.873 7385	7.887 4597	7.901 0111	7.927 6077	163
164	7.871 5877	7.885 3859	7.899 0123	7.925 7529	164
165	7.869 4528	7.883 3279	7.897 0292	7.923 9135	165
166	7.867 3336	7.881 2855	7.895 0617	7.922 0895	166
167	7.865 2299	2.879 2587	7.893 1095	7.920 2807	167
168	7.863 1416	7.877 2471	7.891 1725	7.918 4868	168
169	7.861 0685	7.875 2506	7.889 2505	7.916 7077	169
170	7.859 0103	7.873 2690	7.887 3434	7.914 9432	170
171	7.856 9670	7.871 3021	7.885 4508	7.913 1931	171
172	7.854 9383	7.869 3497	7.883 5727	7.911 4572	172
173	7.852 9240	7.867 4118	7.881 7090	7.909 7355	173
174	7.850 9240	7.856 4880	7.879 8593	7.908 0276	174
175	7.848 9381	7.863 5783	7.878 0235	7.906 3334	175
176	7.846 9662	7.861 6824	7.876 2016	7.904 6529	176
177	7.845 0082	7.859 8003	7.874 3933	7.902 9858	177
178	7.843 0637	7.857 9318	7.872 5984	7.901 3318	178
179	7.841 1327	7.856 0766	7.870 8169	7.899 6910	179
180	7.839 2150	7.854 2347	7.869 0485	7.898 0632	180
181	7.837 3105	7.852 4059	7.867 2932	7.896 4481	181
182	7.835 4191	7.850 5900	7.865 5507	7.894 8457	182
183	7.833 5406	7.848 7870	7.863 8209	7.893 2558	183
184	7.831 6747	7.846 9967	7.862 1037	7.891 6782	184
185	7.829 8216	7.845 2188	7.860 3989	7.890 1129	185
186	7.827 9809	7.843 4533	7.858 7064	7.888 5596	186
187	7.826 1525	7.841 7001	7.857 0261	7.887 0183	187
188	7.824 3363	7.839 9591	7.855 3578	7.885 4889	188
189	7.822 5321	7.838 2299	7.853 7015	7.883 9710	189
190	7.820 7399	7.836 5126	7.852 0568	7.882 4648	190
191	7.818 9595	7.834 8071	7.850 4238	7.880 9700	191
192	7.817 1907	7.833 1132	7.848 8023	7.879 4864	192
193	7.815 4336	7.831 4308	7.847 1922	7.878 0140	193
194	7.813 6879	7.829 7597	7.845 5934	7.876 5528	194
195	7.811 9535	7.828 0998	7.844 0058	7.875 1024	195
196	7.810 2303	7.826 4511	7.842 4292	7.873 6628	196
197	7.808 5181	7.824 8134	7.840 8634	7.872 2339	197
198	7.806 8170	7.823 1865	7.839 3084	7.870 8157	198
199	7.805 1268	7.821 5705	7.837 7642	7.869 4078	199
200	7.803 4472	7.819 9651	7.836 2306	7.868 0104	200

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	1.0050 0000	1.0058 3333	1.0062 5000	1.0066 6667	1
2	0.5037 5312	0.5043 7924	0.5046 9237	0.5050 0554	2
3	0.3366 7221	0.3372 2976	0.3375 0865	0.3377 8762	3
4	0.2531 3279	0.2536 5644	0.2539 1842	0.2541 8051	4
5	0.2030 0997	0.2035 1357	0.2037 6558	0.2040 1772	5
6	0.1695 9546	0.1700 8594	0.1703 3143	0.1705 7709	6
7	0.1457 2854	0.1462 0986	0.1464 5082	0.1466 9198	7
8	0.1278 2886	0.1283 0351	0.1285 4118	0.1287 7907	8
9	0.1139 0736	0.1143 7698	0.1146 1218	0.1148 4763	9
10	0.1027 7057	0.1032 3632	0.1034 6963	0.1037 0321	10
11	0.0936 5903	0.0941 2175	0.0943 5358	0.0945 8572	11
12	0.0860 6643	0.0865 2675	0.0867 5742	0.0869 8843	12
13	0.0796 4224	0.0801 0064	0.0803 3039	0.0805 6052	13
14	0.0741 3609	0.0745 9295	0.0748 2198	0.0750 5141	14
15	0.0693 6436	0.0698 1999	0.0700 4845	0.0702 7734	15
16	0.0651 8937	0.0656 4401	0.0658 7202	0.0661 0049	16
17	0.0615 0579	0.0619 5966	0.0621 8732	0.0624 1546	17
18	0.0582 3173	0.0586 8499	0.0589 1239	0.0591 4030	18
19	0.0553 0253	0.0557 5532	0.0559 8252	0.0562 1027	19
20	0.0526 6645	0.0531 1889	0.0533 4597	0.0535 7362	20
21	0.0502 8163	0.0507 3383	0.0509 6083	0.0511 8843	21
22	0.0481 1380	0.0485 6585	0.0487 9281	0.0490 2041	22
23	0.0461 3465	0.0465 8663	0.0468 1360	0.0470 4123	23
24	0.0443 2061	0.0447 7258	0.0449 9959	0.0452 2729	24
25	0.0426 5186	0.0431 0388	0.0433 3096	0.0435 5876	25
26	0.0411 1163	0.0415 6376	0.0417 9094	0.0420 1886	26
27	0.0396 8565	0.0401 3793	0.0403 6523	0.0405 9331	27
28	0.0383 6167	0.0388 1415	0.0390 4159	0.0392 6983	28
29	0.0371 2914	0.0375 8186	0.0378 0946	0.0380 3789	29
30	0.0359 7892	0.0364 3191	0.0366 5969	0.0368 8832	30
31	0.0349 0304	0.0353 5633	0.0355 8430	0.0358 1316	31
32	0.0338 9453	0.0343 4815	0.0345 7633	0.0348 0542	32
33	0.0329 4727	0.0334 0124	0.0336 2964	0.0338 5898	33
34	0.0320 5586	0.0325 1020	0.0327 3883	0.0329 6843	34
35	0.0312 1550	0.0316 7024	0.0318 9911	0.0321 2898	35
36	0.0304 2194	0.0308 7710	0.0311 0622	0.0313 3637	36
37	0.0296 7139	0.0301 2698	0.0303 5636	0.0305 8680	37
38	0.0289 6045	0.0294 1649	0.0296 4614	0.0298 7687	38
39	0.0282 8607	0.0287 4258	0.0289 7250	0.0292 0354	39
40	0.0276 4552	0.0281 0251	0.0283 3271	0.0285 6406	40
41	0.0270 3631	0.0274 9379	0.0277 2429	0.0279 5595	41
42	0.0264 5622	0.0269 1420	0.0271 4499	0.0273 7697	42
43	0.0259 0320	0.0263 6170	0.0265 9278	0.0268 2509	43
44	0.0253 7541	0.0258 3443	0.0260 6583	0.0262 9847	44
45	0.0248 7117	0.0253 3073	0.0255 6243	0.0257 9541	45
46	0.0243 8894	0.0248 4905	0.0250 8106	0.0253 1439	46
47	0.0239 2733	0.0243 8798	0.0246 2032	0.0248 5399	47
48	0.0234 8503	0.0239 4624	0.0241 7890	0.0244 1292	48
49	0.0230 6087	0.0235 2265	0.0237 5563	0.0239 9001	49
50	0.0226 5376	0.0231 1611	0.0233 4943	0.0235 8416	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
1	0.002 1661	0.002 5260	0.002 7059	0.002 8857	1
2	9.702 2177	9.702 7572	9.703 0267	9.703 2961	2
3	9.527 2073	9.527 9259	9.528 2849	9.528 6467	3
4	9.403 3483	9.404 2459	9.404 6942	9.405 1423	4
5	9.307 5174	9.308 5934	9.309 1308	9.309 6679	5
6	9.229 4142	9.230 6684	9.231 2948	9.231 9207	6
7	9.163 5446	9.164 9766	9.165 6918	9.166 4064	7
8	9.106 6289	9.108 2386	9.109 0423	9.109 8453	8
9	9.056 5518	9.058 3386	9.059 2308	9.060 1220	9
10	9.011 8688	9.013 8325	9.014 8129	9.015 7922	10
11	8.971 5497	8.973 6900	8.974 7584	8.975 8256	11
12	8.934 8337	8.937 1504	8.938 3066	8.939 4614	12
13	8.901 1435	8.903 6360	8.904 8799	8.906 1222	13
14	8.870 0296	8.872 6978	8.874 0292	8.875 3589	14
15	8.841 1364	8.843 9798	8.845 3986	8.846 8153	15
16	8.814 1767	8.817 1951	8.818 7010	8.820 2047	16
17	8.788 9160	8.792 1090	8.793 7018	8.795 2922	17
18	8.765 1597	8.768 5270	8.770 2066	8.771 8835	18
19	8.742 7450	8.746 2863	8.748 0525	8.749 8157	19
20	8.721 5340	8.725 2490	8.727 1017	8.728 9510	20
21	8.701 4094	8.705 2976	8.707 2365	8.709 1718	21
22	8.682 2697	8.686 3310	8.688 3559	8.690 3769	22
23	8.664 0273	8.668 2613	8.670 3720	8.672 4787	23
24	8.646 6058	8.651 0121	8.653 2086	8.655 4006	24
25	8.629 9379	8.634 5164	8.636 7983	8.639 0755	25
26	8.613 9647	8.618 7148	8.621 0822	8.623 4443	26
27	8.598 6334	8.603 5550	8.606 0075	8.608 4544	27
28	8.583 8975	8.588 9901	8.591 5275	8.594 0591	28
29	8.569 7149	8.574 9782	8.577 6005	8.580 2164	29
30	8.556 0481	8.561 4819	8.564 1888	8.566 8889	30
31	8.542 8632	8.548 4672	8.551 2585	8.554 0426	31
32	8.530 1296	8.535 9033	8.538 7789	8.541 6469	32
33	8.517 8195	8.523 7626	8.526 7223	8.529 6738	33
34	8.505 9074	8.512 0197	8.515 0632	8.518 0983	34
35	8.494 3703	8.500 6513	8.503 7786	8.506 8969	35
36	8.483 1869	8.489 6365	8.492 8472	8.496 0486	36
37	8.472 3378	8.478 9556	8.482 2497	8.485 5339	37
38	8.461 8052	8.468 5909	8.471 9682	8.475 3351	38
39	8.451 5726	8.458 5258	8.461 9860	8.465 4355	39
40	8.441 6248	8.448 7450	8.452 2881	8.455 8199	40
41	8.431 9475	8.439 2347	8.442 8604	8.446 4742	41
42	8.422 5277	8.429 9814	8.433 6897	8.437 3854	42
43	8.413 3533	8.420 9734	8.424 7639	8.428 5423	43
44	8.404 4130	8.412 1990	8.416 0715	8.419 9305	44
45	8.395 6962	8.403 6477	8.407 6022	8.411 5425	45
46	8.387 1930	8.395 3098	8.399 3460	8.403 3674	46
47	8.378 8942	8.387 1759	8.391 2937	8.395 3961	47
48	8.370 7911	8.379 2374	8.383 4366	8.387 6197	48
49	8.362 8757	8.371 4863	8.375 7667	8.380 0304	49
50	8.355 1403	8.363 9148	8.368 2762	8.372 6204	50

Annuity Whose Present Value at Compound Interest is 1

$$a^{-1}_{\overline{n}|i} = i/(1-v^n)$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	0.0222 6269	0.0227 2563	0.0229 5928	0.0231 9437	51
52	0.0218 8675	0.0223 5027	0.0225 8425	0.0228 1971	52
53	0.0215 2507	0.0219 8919	0.0222 2350	0.0224 5932	53
54	0.0211 7686	0.0216 4157	0.0218 7623	0.0221 1242	54
55	0.0208 4139	0.0213 0671	0.0215 4171	0.0217 7827	55
56	0.0205 1797	0.0209 8390	0.0212 1925	0.0214 5618	56
57	0.0202 0598	0.0206 7251	0.0209 0821	0.0211 4552	57
58	0.0199 0481	0.0203 7196	0.0206 0801	0.0208 4569	58
59	0.0196 1392	0.0200 8170	0.0203 1809	0.0205 5616	59
60	0.0193 3280	0.0198 0120	0.0200 3795	0.0202 7639	60
61	0.0190 6096	0.0195 2999	0.0197 6709	0.0200 0592	61
62	0.0187 9796	0.0192 6762	0.0195 0508	0.0197 4429	62
63	0.0185 4337	0.0190 1366	0.0192 5148	0.0194 9108	63
64	0.0182 9681	0.0187 6773	0.0190 0591	0.0192 4590	64
65	0.0180 5789	0.0185 2946	0.0187 6800	0.0190 0837	65
66	0.0178 2627	0.0182 9848	0.0185 3739	0.0187 7815	66
67	0.0176 0163	0.0180 7449	0.0183 1376	0.0185 5491	67
68	0.0173 8366	0.0178 5716	0.0180 9680	0.0183 3835	68
69	0.0171 7206	0.0176 4622	0.0178 8622	0.0181 2816	69
70	0.0169 6657	0.0174 4138	0.0176 8175	0.0179 2409	70
71	0.0167 6693	0.0172 4239	0.0174 8313	0.0177 2586	71
72	0.0165 7289	0.0170 4901	0.0172 9011	0.0175 3324	72
73	0.0163 8422	0.0168 6100	0.0171 0247	0.0173 4600	73
74	0.0162 0070	0.0166 7814	0.0169 1999	0.0171 6391	74
75	0.0160 2214	0.0165 0024	0.0167 4246	0.0169 8678	75
76	0.0158 4832	0.0163 2709	0.0165 6968	0.0168 1440	76
77	0.0156 7908	0.0161 5851	0.0164 0147	0.0166 4659	77
78	0.0155 1423	0.0159 9432	0.0162 3766	0.0164 8318	78
79	0.0153 5360	0.0158 3436	0.0160 7808	0.0163 2400	79
80	0.0151 9704	0.0156 7847	0.0159 2256	0.0161 6889	80
81	0.0150 4439	0.0155 2650	0.0157 7096	0.0160 1769	81
82	0.0148 9552	0.0153 7830	0.0156 2314	0.0158 7027	82
83	0.0147 5028	0.0152 3373	0.0154 7895	0.0157 2649	83
84	0.0146 0855	0.0150 9268	0.0153 3828	0.0155 8621	84
85	0.0144 7021	0.0149 5501	0.0152 0098	0.0154 4933	85
86	0.0143 3513	0.0148 2060	0.0150 6696	0.0153 1570	86
87	0.0142 0320	0.0146 8935	0.0149 3608	0.0151 8524	87
88	0.0140 7431	0.0145 6115	0.0148 0826	0.0150 5781	88
89	0.0139 4837	0.0144 3588	0.0146 8337	0.0149 3334	89
90	0.0138 2527	0.0143 1347	0.0145 6134	0.0148 1170	90
91	0.0137 0493	0.0141 9380	0.0144 4205	0.0146 9282	91
92	0.0135 8724	0.0140 7679	0.0143 2542	0.0145 7660	92
93	0.0134 7213	0.0139 6236	0.0142 1137	0.0144 6296	93
94	0.0133 5950	0.0138 5042	0.0140 9982	0.0143 5181	94
95	0.0132 4930	0.0137 4090	0.0139 9067	0.0142 4308	95
96	0.0131 4143	0.0136 3372	0.0138 8387	0.0141 3668	96
97	0.0130 3583	0.0135 2880	0.0137 7933	0.0140 3255	97
98	0.0129 3242	0.0134 2608	0.0136 7700	0.0139 3062	98
99	0.0128 3115	0.0133 2549	0.0135 7679	0.0138 3082	99
100	0.0127 3194	0.0132 2696	0.0134 7865	0.0137 3308	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
51	8.347 5777	8.356 5159	8.360 9582	8.365 3825	51
52	8.340 1812	8.349 2828	8.353 8057	8.358 3100	52
53	8.332 9445	8.342 2091	8.346 8125	8.351 3967	53
54	8.325 8616	8.335 2888	8.339 9726	8.344 6363	54
55	8.318 9267	8.328 5163	8.333 2802	8.338 0233	55
56	8.312 1345	8.321 8861	8.326 7299	8.331 5534	56
57	8.305 4798	8.315 3933	8.320 3169	8.325 2183	57
58	8.298 9581	8.309 0329	8.314 0361	8.319 0164	58
59	8.292 5645	8.302 8004	8.307 8830	8.312 9419	59
60	8.286 2948	8.296 6915	8.301 8532	8.306 9907	60
61	8.280 1449	8.290 7020	8.295 9428	8.301 1586	61
62	8.274 1108	8.284 8280	8.290 1477	8.295 4416	62
63	8.268 1887	8.279 0658	8.284 4642	8.289 8359	63
64	8.262 3753	8.273 4118	8.278 8888	8.284 3382	64
65	8.256 6670	8.267 8627	8.273 4180	8.278 9450	65
66	8.251 0606	8.262 4151	8.268 0485	8.273 6529	66
67	8.245 5530	8.257 0660	8.262 7774	8.269 4590	67
68	8.240 1412	8.251 8125	8.257 6017	8.263 3602	68
69	8.234 8225	8.246 6517	8.252 5186	8.259 3538	69
70	8.229 5941	8.241 5809	8.247 5252	8.253 4370	70
71	8.224 4536	8.236 5975	8.242 6192	8.248 6073	71
72	8.219 3982	8.231 6991	8.237 7978	8.243 8622	72
73	8.214 4258	8.226 8832	8.233 0589	8.239 1993	73
74	8.209 5339	8.222 1476	8.228 4001	8.234 6163	74
75	8.204 7204	8.217 4902	8.223 8192	8.230 1110	75
76	8.199 9833	8.212 9087	8.219 3141	8.225 6815	76
77	8.195 3205	8.208 4013	8.214 8828	8.221 3254	77
78	8.190 7301	8.203 9658	8.210 5235	8.217 0411	78
79	8.186 2102	8.199 6005	8.206 2341	8.212 8266	79
80	8.181 7589	8.195 3037	8.202 0129	8.208 6801	80
81	8.177 3746	8.191 0735	8.197 8581	8.204 5999	81
82	8.173 0557	8.186 9082	8.193 7682	8.200 5843	82
83	8.168 8003	8.182 8064	8.189 7416	8.196 6318	83
84	8.164 6072	8.178 7663	8.185 7765	8.192 7406	84
85	8.160 4748	8.174 7867	8.181 8717	8.188 9095	85
86	8.156 4016	8.170 8659	8.178 0255	8.185 1370	86
87	8.152 3862	8.167 0027	8.174 2367	8.181 4215	87
88	8.148 4272	8.163 1956	8.170 5040	8.177 7620	88
89	8.144 5235	8.159 4434	8.166 8259	8.174 1568	89
90	8.140 6737	8.155 7448	8.163 2012	8.170 6051	90
91	8.137 8767	8.152 0986	8.159 6288	8.167 1053	91
92	8.133 1312	8.148 5037	8.156 1074	8.163 6564	92
93	8.129 4361	8.144 9589	8.152 6360	8.160 2572	93
94	8.125 7904	8.141 4631	8.149 2134	8.156 9067	94
95	8.122 1929	8.138 0152	8.145 8387	8.153 6037	95
96	8.118 6427	8.134 6142	8.142 5105	8.150 3474	96
97	8.115 1386	8.131 2592	8.139 2282	8.147 1366	97
98	8.111 6799	8.127 9492	8.135 9907	8.143 9704	98
99	8.108 2655	8.124 6831	8.132 7970	8.140 8479	99
100	8.104 8945	8.121 4602	8.129 6462	8.137 7680	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	0.0126 3473	0.0131 3045	0.0133 8251	0.0136 3735	101
102	0.0125 3947	0.0130 3587	0.0132 8832	0.0135 4357	102
103	0.0124 4611	0.0129 4319	0.0131 9602	0.0134 5168	103
104	0.0123 5457	0.0128 5234	0.0131 0555	0.0133 6162	104
105	0.0122 6481	0.0127 6238	0.0130 1687	0.0132 7334	105
106	0.0121 7679	0.0126 7594	0.0129 2992	0.0131 8680	106
107	0.0120 9045	0.0125 9029	0.0128 4465	0.0131 0194	107
108	0.0120 0575	0.0125 0628	0.0127 6102	0.0130 1871	108
109	0.0119 2264	0.0124 2385	0.0126 7897	0.0129 3708	109
110	0.0118 4107	0.0123 4298	0.0125 9848	0.0128 5700	110
111	0.0117 6102	0.0122 6361	0.0125 1950	0.0127 7842	111
112	0.0116 8242	0.0121 8571	0.0124 4198	0.0127 0131	112
113	0.0116 0526	0.0121 0923	0.0123 6588	0.0126 2562	113
114	0.0115 2948	0.0120 3414	0.0122 9118	0.0125 5132	114
115	0.0114 5506	0.0119 6041	0.0122 1783	0.0124 7838	115
116	0.0113 8195	0.0118 8799	0.0121 4579	0.0124 0675	116
117	0.0113 1013	0.0118 1686	0.0120 7504	0.0123 3641	117
118	0.0112 3956	0.0117 4698	0.0120 0555	0.0122 6732	118
119	0.0111 7021	0.0116 7832	0.0119 3727	0.0121 9944	119
120	0.0111 0205	0.0116 1085	0.0118 7018	0.0121 3276	120
121	0.0110 3505	0.0115 4454	0.0118 0425	0.0120 6724	121
122	0.0109 6918	0.0114 7936	0.0117 3945	0.0120 0284	122
123	0.0109 0441	0.0114 1528	0.0116 7575	0.0119 3955	123
124	0.0108 4072	0.0113 5228	0.0116 1314	0.0118 7734	124
125	0.0107 7808	0.0112 9033	0.0115 5157	0.0118 1618	125
126	0.0107 1647	0.0112 2940	0.0114 9102	0.0117 5604	126
127	0.0106 5586	0.0111 6948	0.0114 3148	0.0116 9690	127
128	0.0105 9623	0.0111 1054	0.0113 7292	0.0116 3875	128
129	0.0105 3755	0.0110 5255	0.0113 1531	0.0115 8154	129
130	0.0104 7981	0.0109 9550	0.0112 5864	0.0115 2527	130
131	0.0104 2298	0.0109 3935	0.0112 0288	0.0114 6992	131
132	0.0103 6704	0.0108 8410	0.0111 4800	0.0114 1545	132
133	0.0103 1197	0.0108 2972	0.0110 9400	0.0113 6185	133
134	0.0102 5775	0.0107 7619	0.0110 4086	0.0113 0910	134
135	0.0102 0436	0.0107 2349	0.0109 8854	0.0112 5719	135
136	0.0101 5179	0.0106 7161	0.0109 3703	0.0112 0609	136
137	0.0101 0002	0.0106 2052	0.0108 8633	0.0111 5578	137
138	0.0100 4902	0.0105 7021	0.0108 3640	0.0111 0625	138
139	0.0099 9879	0.0105 2067	0.0107 8723	0.0110 5749	139
140	0.0099 4930	0.0104 7187	0.0107 3881	0.0110 0947	140
141	0.0099 0055	0.0104 2380	0.0106 9111	0.0109 6218	141
142	0.0098 5250	0.0103 7644	0.0106 4414	0.0109 1560	142
143	0.0098 0516	0.0103 2978	0.0105 9786	0.0108 6972	143
144	0.0097 5850	0.0102 8381	0.0105 5226	0.0108 2453	144
145	0.0097 1252	0.0102 3851	0.0105 0734	0.0107 8000	145
146	0.0096 6719	0.0101 9386	0.0104 6307	0.0107 3613	146
147	0.0096 2250	0.0101 4986	0.0104 1944	0.0106 9291	147
148	0.0095 7844	0.0101 0649	0.0103 7645	0.0106 5031	148
149	0.0095 3500	0.0100 6373	0.0103 3407	0.0106 0833	149
150	0.0094 9217	0.0100 2159	0.0102 9230	0.0105 6695	150

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
101	8.101 5660	8.118 2795	8.126 5375	8.134 7302	101
102	8.098 2793	8.115 1402	8.123 4700	8.131 7332	102
103	8.095 0333	8.112 0413	8.120 4429	8.128 7764	103
104	8.091 8276	8.108 9822	8.117 4553	8.125 8591	104
105	8.088 6610	8.105 9621	8.114 5065	8.122 9803	105
106	8.085 5329	8.102 9802	8.111 5957	8.120 1394	106
107	8.082 4426	8.100 0357	8.108 7222	8.117 3356	107
108	8.079 3893	8.097 1280	8.105 8852	8.114 5681	108
109	8.076 3723	8.094 2564	8.103 0842	8.111 8364	109
110	8.073 3911	8.091 4200	8.100 3183	8.109 1395	110
111	8.070 4449	8.088 6183	8.097 5869	8.106 4771	111
112	8.067 5330	8.085 8507	8.094 8894	8.103 8483	112
113	8.064 6549	8.083 1166	8.092 2252	8.101 2527	113
114	8.061 8098	8.080 4152	8.089 0935	8.098 6894	114
115	8.058 9973	8.077 7461	8.086 9940	8.096 1581	115
116	8.056 2168	8.075 1086	8.084 4259	8.093 6581	116
117	8.053 4676	8.072 5021	8.081 8887	8.091 1886	117
118	8.050 7493	8.069 9263	8.079 3819	8.088 7495	118
119	8.048 0614	8.067 3803	8.076 9049	8.086 3400	119
120	8.045 4032	8.064 8639	8.074 4572	8.083 9596	120
121	8.042 7742	8.062 3765	8.072 0383	8.081 6078	121
122	8.040 1741	8.059 9175	8.069 6477	8.079 2841	122
123	8.037 6022	8.057 4865	8.067 2849	8.076 9881	123
124	8.035 0583	8.055 0831	8.064 9495	8.074 7192	124
125	8.032 5416	8.052 7066	8.062 6409	8.072 4770	125
126	8.030 0518	8.050 6567	8.060 3588	8.070 2611	126
127	8.027 5886	8.048 0331	8.058 1026	8.068 0701	127
128	8.025 1512	8.045 7352	8.055 8720	8.065 9062	128
129	8.022 7397	8.043 4625	8.053 6666	8.063 7664	129
130	8.020 3533	8.041 2148	8.051 4859	8.061 6512	130
131	8.017 9917	8.038 9916	8.049 3295	8.059 5602	131
132	8.015 6545	8.036 7926	8.047 1972	8.057 4929	132
133	8.013 3414	8.034 6172	8.045 0884	8.055 4490	133
134	8.011 0520	8.032 4653	8.043 0026	8.053 4281	134
135	8.008 7859	8.030 3363	8.040 9399	8.051 4300	135
136	8.006 5427	8.028 2299	8.038 8995	8.049 4540	136
137	8.004 3221	8.026 1459	8.036 8813	8.047 5000	137
138	8.002 1238	8.024 0838	8.034 8849	8.045 5676	138
139	7.999 9474	8.022 0433	8.032 9099	8.043 6566	139
140	7.997 7926	8.020 0240	8.030 9560	8.041 7663	140
141	7.995 6591	8.018 0259	8.029 0230	8.039 8968	141
142	7.993 5466	8.016 0484	8.027 1105	8.038 0476	142
143	7.991 4547	8.014 0912	8.025 2181	8.036 2184	143
144	7.989 3832	8.012 1540	8.023 3456	8.034 4088	144
145	7.987 3318	8.010 2367	8.021 4927	8.032 6188	145
146	7.985 3000	8.008 3388	8.019 6591	8.030 8479	146
147	7.983 2879	8.006 4601	8.017 8446	8.029 0957	147
148	7.981 2949	8.004 6004	8.016 0488	8.027 3624	148
149	7.979 3208	8.002 7592	8.014 2714	8.025 6470	149
150	7.977 3656	8.000 9364	8.012 5124	8.023 9498	150

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	0.0094 4993	0.0099 8003	0.0102 5112	0.0105 2617	151
152	0.0094 0827	0.0099 3905	0.0102 1052	0.0104 8597	152
153	0.0093 6719	0.0098 9865	0.0101 7049	0.0104 4633	153
154	0.0093 2666	0.0098 5880	0.0101 3102	0.0104 0726	154
155	0.0092 8668	0.0098 1950	0.0100 9209	0.0103 6873	155
156	0.0092 4723	0.0097 8074	0.0100 5370	0.0103 3074	156
157	0.0092 0832	0.0097 4251	0.0100 1584	0.0102 9327	157
158	0.0091 6992	0.0097 0479	0.0099 7850	0.0102 5632	158
159	0.0091 3203	0.0096 6758	0.0099 4166	0.0102 1988	159
160	0.0090 9464	0.0096 3087	0.0099 0532	0.0101 8394	160
161	0.0090 5774	0.0095 9464	0.0098 6947	0.0101 4848	161
162	0.0090 2131	0.0095 5890	0.0098 3410	0.0101 1350	162
163	0.0089 8536	0.0095 2362	0.0097 9919	0.0100 7899	163
164	0.0089 4987	0.0094 8881	0.0097 6475	0.0100 4494	164
165	0.0089 1483	0.0094 5445	0.0097 3076	0.0100 1134	165
166	0.0088 8024	0.0094 2053	0.0096 9722	0.0099 7819	166
167	0.0088 4608	0.0093 8705	0.0096 6411	0.0099 4547	167
168	0.0088 1236	0.0093 5400	0.0096 3143	0.0099 1318	168
169	0.0087 7906	0.0093 2138	0.0095 9918	0.0098 8131	169
170	0.0087 4617	0.0092 8917	0.0095 6733	0.0098 4986	170
171	0.0087 1369	0.0092 5736	0.0095 3589	0.0098 1881	171
172	0.0086 8161	0.0092 2595	0.0095 0486	0.0097 8816	172
173	0.0086 4992	0.0091 9494	0.0094 7421	0.0097 5791	173
174	0.0086 1862	0.0091 6431	0.0094 4395	0.0097 2803	174
175	0.0085 8770	0.0091 3406	0.0094 1407	0.0096 9854	175
176	0.0085 5715	0.0091 0418	0.0093 8456	0.0096 6942	176
177	0.0085 2697	0.0090 7468	0.0093 5542	0.0096 4066	177
178	0.0084 9715	0.0090 4553	0.0093 2664	0.0096 1226	178
179	0.0084 6769	0.0090 1673	0.0092 9821	0.0095 8422	179
180	0.0084 3857	0.0089 8828	0.0092 7012	0.0095 5652	180
181	0.0084 0979	0.0089 6018	0.0092 4238	0.0095 2917	181
182	0.0083 8136	0.0089 3241	0.0092 1498	0.0095 0215	182
183	0.0083 5325	0.0089 0497	0.0091 8791	0.0094 7546	183
184	0.0083 2547	0.0088 7786	0.0091 6116	0.0094 4909	184
185	0.0082 9802	0.0088 5107	0.0091 3473	0.0094 2305	185
186	0.0082 7087	0.0088 2459	0.0091 0862	0.0093 9732	186
187	0.0082 4404	0.0087 9843	0.0090 8282	0.0093 7189	187
188	0.0082 1752	0.0087 7257	0.0090 5732	0.0093 4678	188
189	0.0081 9129	0.0087 4701	0.0090 3212	0.0093 2196	189
190	0.0081 6537	0.0087 2174	0.0090 0722	0.0092 9743	190
191	0.0081 3973	0.0086 9677	0.0089 8260	0.0092 7320	191
192	0.0081 1438	0.0086 7208	0.0089 5828	0.0092 4925	192
193	0.0080 8931	0.0086 4767	0.0089 3423	0.0092 2558	193
194	0.0080 6452	0.0086 2355	0.0089 1046	0.0092 0219	194
195	0.0080 4000	0.0085 9969	0.0088 8696	0.0091 7907	195
196	0.0080 1576	0.0085 7610	0.0088 6374	0.0091 5622	196
197	0.0079 9178	0.0085 5278	0.0088 4077	0.0091 3363	197
198	0.0079 6806	0.0085 2972	0.0088 1807	0.0091 1130	198
199	0.0079 4459	0.0085 0691	0.0087 9562	0.0090 8923	199
200	0.0079 2138	0.0084 8436	0.0087 7343	0.0090 6741	200

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	$\frac{1}{2}\%$	$\frac{7}{12}\%$	$\frac{5}{8}\%$	$\frac{2}{3}\%$	n
151	7.975 4286	7.999 1318	8.010 7712	8.022 2704	151
152	7.973 5100	7.997 3451	8.009 0478	8.020 6085	152
153	7.971 6091	7.995 5759	8.007 3418	8.018 9640	153
154	7.969 7260	7.993 8241	8.005 6529	8.017 3364	154
155	7.967 8604	7.992 0895	8.003 9812	8.015 7256	155
156	7.966 0118	7.990 3718	8.002 3261	8.014 1314	156
157	7.964 1804	7.988 6707	8.000 6875	8.012 5535	157
158	7.962 3656	7.986 9861	7.999 0652	8.010 9917	158
159	7.960 5674	7.985 3177	7.997 4590	8.009 4458	159
160	7.958 7855	7.983 6653	7.995 8686	8.007 9156	160
161	7.957 0196	7.982 0287	7.994 2938	8.006 4009	161
162	7.955 2696	7.980 4077	7.992 7345	8.004 9013	162
163	7.953 5354	7.978 8020	7.991 1904	8.003 4168	163
164	7.951 8165	7.977 2116	7.989 6612	8.001 9472	164
165	7.950 1131	7.975 6361	7.988 1469	8.000 4922	165
166	7.948 4245	7.974 0754	7.986 6472	7.999 0516	166
167	7.946 7511	7.972 5293	7.985 1620	7.997 6253	167
168	7.945 0922	7.970 9976	7.983 6909	7.996 2131	168
169	7.943 4478	7.969 4801	7.982 2339	7.994 8147	169
170	7.941 8179	7.967 9767	7.980 7909	7.993 4301	170
171	7.940 2021	7.966 4871	7.979 3614	7.992 0590	171
172	7.938 6002	7.965 0112	7.977 9456	7.990 7012	172
173	7.937 0122	7.963 5488	7.976 5431	7.989 3566	173
174	7.935 4377	7.962 0997	7.975 1538	7.988 0250	174
175	7.933 8768	7.960 6639	7.973 7774	7.986 7063	175
176	7.932 3292	7.959 2411	7.972 4140	7.985 4003	176
177	7.930 7948	7.957 8311	7.971 0632	7.984 1067	177
178	7.929 2733	7.956 4338	7.969 7250	7.982 8256	178
179	7.927 7647	7.955 0491	7.968 3991	7.981 5567	179
180	7.926 2688	7.953 6767	7.967 0855	7.980 2998	180
181	7.924 7854	7.952 3166	7.965 7840	7.979 0548	181
182	7.923 3144	7.950 9686	7.964 4944	7.977 8217	182
183	7.921 8557	7.949 6325	7.963 2166	7.976 6001	183
184	7.920 4090	7.948 3084	7.961 9505	7.975 3900	184
185	7.918 9743	7.946 9957	7.960 6958	7.974 1913	185
186	7.917 5515	7.945 6947	7.959 4526	7.973 0038	186
187	7.916 1403	7.944 4051	7.958 2206	7.971 8273	187
188	7.914 7407	7.943 1267	7.956 9997	7.970 6618	188
189	7.913 3525	7.941 8595	7.955 7897	7.969 5071	189
190	7.911 9756	7.940 6037	7.954 5906	7.968.3631	190
191	7.910 6099	7.939 3579	7.953 4022	7.967 2296	191
192	7.909 2553	7.938 1233	7.952 2245	7.966 1066	192
193	7.907 9115	7.936 8993	7.951 0571	7.964 9938	193
194	7.906 5785	7.935 6858	7.949 9001	7.963 8912	194
195	7.905 2563	7.934 4828	7.948 7534	7.962 7987	195
196	7.903 9446	7.933 2899	7.947 6168	7.961 7162	196
197	7.902 6434	7.932 1073	7.946 4902	7.960 6434	197
198	7.901 3524	7.930 9347	7.945 3734	7.959 5805	198
199	7.900 0717	7.929 7720	7.944 2665	7.958 5271	199
200	7.898 8011	7.928 6192	7.943 1692	7.957 4832	200

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	¾%	⅞%	1%	1⅛%	n
1	1.0075 0000	1.0087 5000	1.0100 0000	1.0112 5000	1
2	0.5056 3200	0.5065 7203	0.5075 1244	0.5084 5323	2
3	0.3383 4579	0.3391 8361	0.3400 2211	0.3408 6130	3
4	0.2547 0501	0.2554 9257	0.2562 8109	0.2570 7058	4
5	0.2045 2242	0.2052 8049	0.2060 3980	0.2068 0034	5
6	0.1710 6891	0.1718 0789	0.1725 4837	0.1732 9034	6
7	0.1471 7488	0.1479 0070	0.1486 2828	0.1493 5762	7
8	0.1292 5552	0.1299 7190	0.1306 9029	0.1314 1071	8
9	0.1153 1929	0.1160 2868	0.1167 4037	0.1174 5432	9
10	0.1041 7123	0.1048 7538	0.1055 8208	0.1062 9131	10
11	0.0950 5094	0.0957 5111	0.0964 5408	0.0971 5984	11
12	0.0874 5148	0.0881 4860	0.0888 4879	0.0895 5203	12
13	0.0810 2188	0.0817 1669	0.0824 1482	0.0831 1626	13
14	0.0755 1146	0.0762 0453	0.0769 0117	0.0776 0138	14
15	0.0707 3639	0.0714 2817	0.0721 2378	0.0728 2321	15
16	0.0665 5879	0.0672 4965	0.0679 4460	0.0686 4363	16
17	0.0628 7321	0.0635 6346	0.0642 5806	0.0649 5698	17
18	0.0595 9766	0.0602 8756	0.0609 8205	0.0616 8113	18
19	0.0566 6740	0.0573 5715	0.0580 5175	0.0587 5120	19
20	0.0540 3063	0.0547 2042	0.0554 1532	0.0561 1531	20
21	0.0516 4543	0.0523 3541	0.0530 3075	0.0537 3145	21
22	0.0494 7748	0.0501 6779	0.0508 6371	0.0515 6525	22
23	0.0474 9846	0.0481 8921	0.0488 8584	0.0495 8833	23
24	0.0456 8474	0.0463 7604	0.0470 7347	0.0477 7701	24
25	0.0440 1650	0.0447 0843	0.0454 0675	0.0461 1144	25
26	0.0424 7693	0.0431 6959	0.0438 6888	0.0445 7479	26
27	0.0410 5176	0.0417 4520	0.0424 4553	0.0431 5273	27
28	0.0397 2871	0.0404 2300	0.0411 2444	0.0418 3299	28
29	0.0384 9723	0.0391 9243	0.0398 9502	0.0406 0498	29
30	0.0373 4816	0.0380 4431	0.0387 4811	0.0394 5953	30
31	0.0362 7352	0.0369 7068	0.0376 7573	0.0383 8866	31
32	0.0352 6634	0.0359 6454	0.0366 7089	0.0373 8535	32
33	0.0343 2048	0.0350 1976	0.0357 2744	0.0364 4349	33
34	0.0334 3053	0.0341 3092	0.0348 3997	0.0355 5763	34
35	0.0325 9170	0.0332 9324	0.0340 0368	0.0347 2299	35
36	0.0317 9973	0.0325 0244	0.0332 1431	0.0339 3529	36
37	0.0310 5082	0.0317 5473	0.0324 6805	0.0331 9072	37
38	0.0303 4157	0.0310 4671	0.0317 6150	0.0324 8589	38
39	0.0296 6893	0.0303 7531	0.0310 9160	0.0318 1773	39
40	0.0290 3016	0.0297 3780	0.0304 5560	0.0311 8349	40
41	0.0284 2276	0.0291 3169	0.0298 5102	0.0305 8069	41
42	0.0278 4452	0.0285 5475	0.0292 7563	0.0300 0709	42
43	0.0272 9338	0.0280 0493	0.0287 2737	0.0294 6064	43
44	0.0267 6751	0.0274 8039	0.0282 0441	0.0289 3949	44
45	0.0262 6521	0.0269 7943	0.0277 0505	0.0284 4197	45
46	0.0257 8495	0.0265 0053	0.0272 2775	0.0279 6652	46
47	0.0253 2532	0.0260 4228	0.0267 7111	0.0275 1173	47
48	0.0248 8504	0.0256 0338	0.0263 3384	0.0270 7632	48
49	0.0244 6292	0.0251 8265	0.0259 1474	0.0266 5910	49
50	0.0240 5787	0.0247 7900	0.0255 1273	0.0262 5898	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{n}^{-1}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
1	0.003 2450	0.003 7836	0.004 3214	0.004 8585	1
2	9.703 8346	9.704 6413	9.705 4467	9.706 2510	2
3	9.529 3607	9.530 4349	9.531 5072	9.532 5777	3
4	9.406 0375	9.407 3783	9.408 7166	9.410 0524	4
5	9.310 7408	9.312 3477	9.313 9512	9.315 5512	5
6	9.233 1711	9.235 0431	9.236 9109	9.238 7743	6
7	9.167 8337	9.169 9702	9.172 1015	9.174 2274	7
8	9.111 4491	9.113 8495	9.116 2433	9.118 6308	8
9	9.061 9020	9.064 5654	9.067 2210	9.069 8690	9
10	9.017 7478	9.020 6735	9.023 5902	9.026 4978	10
11	8.977 9564	8.981 1438	8.984 3205	8.987 4868	11
12	8.941 7671	8.945 2155	8.948 6515	8.952 0754	12
13	8.908 6024	8.912 3108	8.916 0054	8.919 6860	13
14	8.878 0129	8.881 9808	8.885 9331	8.889 8695	14
15	8.849 6429	8.853 8695	8.858 0785	8.862 2698	15
16	8.823 2054	8.827 6900	8.832 1551	8.836 6002	16
17	8.798 4656	8.803 2076	8.807 9277	8.812 6258	17
18	8.775 2292	8.780 2277	8.785 2020	8.790 1523	18
19	8.753 3333	8.758 5875	8.763 8154	8.769 0167	19
20	8.732 6400	8.738 1494	8.743 6299	8.749 0814	20
21	8.713 0319	8.718 7956	8.724 5279	8.730 2286	21
22	8.694 4076	8.700 4249	8.706 4081	8.712 3572	22
23	8.676 6795	8.682 9498	8.689 1832	8.695 3794	23
24	8.659 7712	8.666 2937	8.672 7763	8.679 2190	24
25	8.643 6155	8.650 3895	8.657 1204	8.663 8086	25
26	8.628 1531	8.635 1779	8.642 1566	8.649 0893	26
27	8.613 3317	8.620 6065	8.627 8319	8.635 0082	27
28	8.599 1045	8.606 6286	8.614 1001	8.621 5189	28
29	8.585 4295	8.593 2021	8.600 9186	8.608 5793	29
30	8.572 2692	8.580 2897	8.588 2506	8.596 1520	30
31	8.559 5897	8.567 8574	8.576 0617	8.584 2029	31
32	8.547 3604	8.555 8745	8.564 3215	8.572 7015	32
33	8.535 5534	8.544 3131	8.553 0019	8.561 6199	33
34	8.524 1432	8.533 1480	8.542 0777	8.550 9329	34
35	8.513 1071	8.522 3560	8.531 5260	8.540 6171	35
36	8.502 4235	8.511 9160	8.521 3252	8.530 6515	36
37	8.492 0761	8.501 8085	8.511 4563	8.521 0167	37
38	8.482 0381	8.492 0156	8.501 9010	8.511 6948	38
39	8.472 3020	8.482 5208	8.492 6430	8.502 6691	39
40	8.462 8494	8.473 3089	8.483 6671	8.493 9247	40
41	8.453 6663	8.464 3657	8.474 9593	8.485 4473	41
42	8.444 7397	8.455 6784	8.466 5063	8.477 2238	42
43	8.436 0573	8.447 2345	8.458 2959	8.469 2422	43
44	8.427 6079	8.439 0228	8.450 3170	8.461 4909	44
45	8.419 3808	8.431 0329	8.442 5589	8.453 9596	45
46	8.411 3663	8.423 2546	8.435 0117	8.446 6384	46
47	8.403 5551	8.415 6790	8.427 6664	8.439 5180	47
48	8.395 9384	8.408 2973	8.420 5142	8.432 5897	48
49	8.388 5083	8.401 1014	8.413 5469	8.425 8455	49
50	8.381 2571	8.394 0837	8.406 7570	8.419 2778	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	0.0236 6888	0.0243 9142	0.0251 2680	0.0258 7494	51
52	0.0232 9503	0.0240 1899	0.0247 5603	0.0255 0606	52
53	0.0229 3546	0.0236 6084	0.0243 9956	0.0251 5149	53
54	0.0225 8938	0.0233 1619	0.0240 5658	0.0248 1043	54
55	0.0222 5605	0.0229 8430	0.0237 2637	0.0244 8213	55
56	0.0219 3478	0.0226 6449	0.0234 0823	0.0241 6592	56
57	0.0216 2496	0.0223 5611	0.0231 0156	0.0238 6116	57
58	0.0213 2597	0.0220 5858	0.0228 0573	0.0235 6726	58
59	0.0210 3727	0.0217 7135	0.0225 2020	0.0232 8366	59
60	0.0207 5836	0.0214 9390	0.0222 4445	0.0230 0985	60
61	0.0204 8873	0.0212 2575	0.0219 7800	0.0227 4534	61
62	0.0202 2795	0.0209 6644	0.0217 2041	0.0224 8969	62
63	0.0199 7560	0.0207 1557	0.0214 7125	0.0222 4247	63
64	0.0197 3127	0.0204 7273	0.0212 3013	0.0220 0329	64
65	0.0194 9460	0.0202 3754	0.0209 9667	0.0217 7178	65
66	0.0192 6524	0.0200 0968	0.0207 7052	0.0215 4758	66
67	0.0190 4286	0.0197 8879	0.0205 5136	0.0213 3037	67
68	0.0188 2716	0.0195 7459	0.0203 3888	0.0211 1985	68
69	0.0186 1785	0.0193 6677	0.0201 3280	0.0209 1571	69
70	0.0184 1464	0.0191 6506	0.0199 3282	0.0207 1769	70
71	0.0182 1728	0.0189 6921	0.0197 3870	0.0205 2552	71
72	0.0180 2554	0.0187 7897	0.0195 5019	0.0203 3896	72
73	0.0178 3917	0.0185 9411	0.0193 6706	0.0201 5779	73
74	0.0176 5796	0.0184 1441	0.0191 8910	0.0199 8177	74
75	0.0174 8170	0.0182 3966	0.0190 1609	0.0198 1072	75
76	0.0173 1020	0.0180 6967	0.0188 4784	0.0196 4442	76
77	0.0171 4328	0.0179 0426	0.0186 8416	0.0194 8269	77
78	0.0169 8074	0.0177 4324	0.0185 2488	0.0193 2536	78
79	0.0168 2244	0.0175 8645	0.0183 6984	0.0191 7226	79
80	0.0166 6821	0.0174 3374	0.0182 1885	0.0190 2323	80
81	0.0165 1790	0.0172 8494	0.0180 7180	0.0188 7812	81
82	0.0163 7136	0.0171 3992	0.0179 2851	0.0187 3678	82
83	0.0162 2847	0.0169 9854	0.0177 8886	0.0185 9908	83
84	0.0160 8908	0.0168 6067	0.0176 5273	0.0184 6489	84
85	0.0159 5308	0.0167 2619	0.0175 1998	0.0183 3409	85
86	0.0158 2034	0.0165 9497	0.0173 9050	0.0182 0654	86
87	0.0156 9076	0.0164 6691	0.0172 6417	0.0180 8215	87
88	0.0155 6423	0.0163 4190	0.0171 4089	0.0179 6081	88
89	0.0154 4064	0.0162 1982	0.0170 2056	0.0178 4240	89
90	0.0153 1989	0.0161 0060	0.0169 0306	0.0177 2684	90
91	0.0152 0190	0.0159 8413	0.0167 8832	0.0176 1403	91
92	0.0150 8657	0.0158 7031	0.0166 7624	0.0175 0387	92
93	0.0149 7382	0.0157 5908	0.0165 6673	0.0173 9629	93
94	0.0148 6356	0.0156 5033	0.0164 5971	0.0172 9119	94
95	0.0147 5571	0.0155 4401	0.0163 5511	0.0171 8851	95
96	0.0146 5020	0.0154 4002	0.0162 5284	0.0170 8816	96
97	0.0145 4696	0.0153 3829	0.0161 5284	0.0169 9007	97
98	0.0144 4592	0.0152 3877	0.0160 5503	0.0168 9418	98
99	0.0143 4701	0.0151 4137	0.0159 5936	0.0168 0041	99
100	0.0142 5017	0.0150 4604	0.0158 6574	0.0167 0870	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}|}^{-1}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
51	8.374 1777	8.387 2370	8.400 1373	8.412 8794	51
52	8.367 2632	8.380 5547	8.393 6811	8.406 6435	52
53	8.360 5074	8.374 0302	8.387 3820	8.400 5637	53
54	8.343 9042	8.367 6577	8.381 2340	8.394 6343	54
55	8.347 4480	8.361 4314	8.375 2314	8.388 8493	55
56	8.341 1334	8.355 3459	8.369 3690	8.383 2034	56
57	8.334 9552	8.349 3963	8.363 6413	8.377 6916	57
58	8.328 9088	8.343 5777	8.358 0440	8.372 3091	58
59	8.322 9895	8.337 8854	8.352 5722	8.367 0512	59
60	8.317 1929	8.332 3152	8.347 2217	8.361 9137	60
61	8.311 5151	8.326 8630	8.341 9883	8.356 8924	61
62	8.305 9519	8.321 5248	8.336 8681	8.351 9835	62
63	8.300 4997	8.316 2969	8.331 8574	8.347 1831	63
64	8.295 1550	8.311 1757	8.326 9527	8.342 4877	64
65	8.289 9143	8.306 1578	8.322 1504	8.337 8939	65
66	8.284 7745	8.301 2401	8.317 4474	8.333 3985	66
67	8.279 7323	8.296 4193	8.312 8407	8.328 9985	67
68	8.274 7849	8.291 6926	8.308 3272	8.324 6908	68
69	8.269 9295	8.287 0572	8.303 9041	8.320 4726	69
70	8.265 1632	8.282 5103	8.299 5689	8.316 3412	70
71	8.260 4836	8.278 0493	8.295 3186	8.312 2941	71
72	8.255 8882	8.273 6717	8.291 1511	8.308 3288	72
73	8.251 3746	8.269 3753	8.287 0638	8.304 4428	73
74	8.246 9405	8.265 1578	8.283 0546	8.300 6340	74
75	8.242 5836	8.261 0167	8.279 1212	8.296 9002	75
76	8.238 3022	8.256 9503	8.275 2615	8.293 2392	76
77	8.234 0938	8.252 9563	8.271 4737	8.289 6489	77
78	8.229 9567	8.249 0329	8.267 7554	8.286 1276	78
79	8.225 8891	8.245 1783	8.264 1051	8.282 6733	79
80	8.221 8890	8.241 3905	8.260 5210	8.279 2842	80
81	8.217 9548	8.237 6679	8.257 0012	8.275 9587	81
82	8.214 0849	8.234 0088	8.253 5442	8.272 6950	82
83	8.210 2775	8.230 4117	8.250 1483	8.269 4916	83
84	8.206 5311	8.226 8749	8.246 8120	8.266 3468	84
85	8.202 8444	8.223 3970	8.243 5338	8.263 2593	85
86	8.199 2158	8.219 9766	8.240 3122	8.260 2275	86
87	8.195 6540	8.216 6121	8.237 1459	8.257 2502	87
88	8.192 1276	8.213 3025	8.234 0335	8.254 3259	88
89	8.188 6652	8.210 0462	8.230 9738	8.251 4534	89
90	8.185 2557	8.206 8420	8.227 9654	8.248 6313	90
91	8.181 8978	8.203 6889	8.225 0073	8.245 8587	91
92	8.178 5905	8.200 5855	8.222 0981	8.243 1341	92
93	8.175 3325	8.197 5308	8.219 2368	8.240 4566	93
94	8.172 1227	8.194 5236	8.216 4222	8.237 8250	94
95	8.168 9601	8.191 5629	8.213 6535	8.235 2382	95
96	8.165 8436	8.188 6477	8.210 9293	8.232 6918	96
97	8.162 7723	8.185 7770	8.208 2489	8.230 1952	97
98	8.159 7453	8.182 9498	8.205 6113	8.227 7371	98
99	8.156 7614	8.180 1652	8.203 0154	8.225 3198	99
100	8.153 8199	8.177 4222	8.200 4605	8.222 9426	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	¾%	⅞%	1%	1⅛%	n
101	0.0141 5533	0.0149 5271	0.0157 7413	0.0166 1899	101
102	0.0140 6243	0.0148 6133	0.0156 8446	0.0165 3122	102
103	0.0139 7143	0.0147 7184	0.0155 9668	0.0164 4534	103
104	0.0138 8226	0.0146 8418	0.0155 1073	0.0163 6128	104
105	0.0137 9487	0.0145 9830	0.0154 2656	0.0162 7900	105
106	0.0137 0922	0.0145 1415	0.0153 4412	0.0161 9844	106
107	0.0136 2524	0.0144 3169	0.0152 6336	0.0161 1956	107
108	0.0135 4291	0.0143 5086	0.0151 8423	0.0160 4231	108
109	0.0134 6217	0.0142 7162	0.0151 0669	0.0159 6665	109
110	0.0133 8296	0.0141 9393	0.0150 3069	0.0158 9252	110
111	0.0133 0527	0.0141 1774	0.0149 5620	0.0158 1990	111
112	0.0132 2905	0.0140 4301	0.0148 8317	0.0157 4873	112
113	0.0131 5425	0.0139 6971	0.0148 1156	0.0156 7898	113
114	0.0130 8084	0.0138 9780	0.0147 4133	0.0156 1061	114
115	0.0130 0878	0.0138 2724	0.0146 7245	0.0155 4358	115
116	0.0129 3803	0.0137 5799	0.0146 0488	0.0154 7786	116
117	0.0128 6857	0.0136 9003	0.0145 3860	0.0154 1342	117
118	0.0128 0037	0.0136 2331	0.0144 7356	0.0153 5022	118
119	0.0127 3338	0.0135 5781	0.0144 0973	0.0152 8824	119
120	0.0126 6758	0.0134 9350	0.0143 4709	0.0152 2743	120
121	0.0126 0294	0.0134 3034	0.0142 8561	0.0151 6777	121
122	0.0125 3942	0.0133 6832	0.0142 2525	0.0151 0924	122
123	0.0124 7702	0.0133 0740	0.0141 6599	0.0150 5179	123
124	0.0124 1568	0.0132 4754	0.0141 0780	0.0149 9542	124
125	0.0123 5540	0.0131 8874	0.0140 5065	0.0149 4008	125
126	0.0122 9614	0.0131 3096	0.0139 9452	0.0148 8576	126
127	0.0122 3788	0.0130 7418	0.0139 3939	0.0148 3244	127
128	0.0121 8060	0.0130 1838	0.0138 8524	0.0147 8008	128
129	0.0121 2428	0.0129 6352	0.0138 3203	0.0147 2866	129
130	0.0120 6888	0.0129 0960	0.0137 7975	0.0146 7817	130
131	0.0120 1440	0.0128 5659	0.0137 2837	0.0146 2858	131
132	0.0119 6080	0.0128 0446	0.0136 7788	0.0145 7987	132
133	0.0119 0808	0.0127 5320	0.0136 2825	0.0145 3202	133
134	0.0118 5621	0.0127 0279	0.0135 7947	0.0144 8501	134
135	0.0118 0516	0.0126 5321	0.0135 3151	0.0144 3882	135
136	0.0117 5493	0.0126 0444	0.0134 8437	0.0143 9343	136
137	0.0117 0550	0.0125 5646	0.0134 3801	0.0143 4883	137
138	0.0116 5684	0.0125 0926	0.0133 9242	0.0143 0499	138
139	0.0116 0894	0.0124 6281	0.0133 4759	0.0142 6190	139
140	0.0115 6179	0.0124 1711	0.0133 0349	0.0142 1955	140
141	0.0115 1536	0.0123 7213	0.0132 6012	0.0141 7792	141
142	0.0114 6965	0.0123 2787	0.0132 1746	0.0141 3699	142
143	0.0114 2464	0.0122 8430	0.0131 7549	0.0140 9674	143
144	0.0113 8031	0.0122 4141	0.0131 3419	0.0140 5717	144
145	0.0113 3664	0.0121 9918	0.0130 9356	0.0140 1826	145
146	0.0112 9364	0.0121 5761	0.0130 5358	0.0139 7999	146
147	0.0112 5127	0.0121 1668	0.0130 1423	0.0139 4235	147
148	0.0112 0953	0.0120 7638	0.0129 7551	0.0139 0533	148
149	0.0111 6841	0.0120 3669	0.0129 3739	0.0138 6891	149
150	0.0111 2790	0.0119 9760	0.0128 9988	0.0138 3309	150

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
101	8.150 9199	8.174 7200	8.197 9455	8.220 6046	101
102	8.148 0604	8.172 0577	8.195 4697	8.218 3050	102
103	8.145 2408	8.169 4346	8.193 0323	8.216 0428	103
104	8.142 4602	8.166 8497	8.190 6324	8.213 8173	104
105	8.139 7177	8.164 3024	8.188 2692	8.211 6277	105
106	8.137 0126	8.161 7918	8.185 9421	8.209 4733	106
107	8.134 3443	8.159 3172	8.183 6502	8.207 3533	107
108	8.131 7119	8.156 8780	8.181 3929	8.205 2670	108
109	8.129 1149	8.154 4733	8.179 1694	8.203 2138	109
110	8.126 5524	8.152 1026	8.176 9790	8.201 1929	110
111	8.124 0238	8.149 7652	8.174 8212	8.199 2036	111
112	8.121 5286	8.147 4603	8.172 6954	8.197 2454	112
113	8.119 0660	8.145 1874	8.170 6006	8.195 3177	113
114	8.116 6355	8.142 9461	8.168 5367	8.193 4197	114
115	8.114 2365	8.140 7354	8.166 5027	8.191 5511	115
116	8.111 8683	8.138 5550	8.164 4982	8.189 7110	116
117	8.109 5305	8.136 4043	8.162 5226	8.187 8991	117
118	8.107 2224	8.134 2826	8.160 5753	8.186 1147	118
119	8.104 9436	8.132 1896	8.158 6560	8.184 3574	119
120	8.102 6936	8.130 1246	8.156 7640	8.182 6266	120
121	8.100 4717	8.128 0872	8.154 8988	8.180 9218	121
122	8.098 2776	8.126 0768	8.153 0598	8.179 2425	122
123	8.096 1107	8.124 0930	8.151 2468	8.177 5888	123
124	8.093 9706	8.122 1354	8.149 4591	8.175 9586	124
125	8.091 8568	8.120 2034	8.147 6964	8.174 3530	125
126	8.089 7688	8.118 2966	8.145 9581	8.172 7711	126
127	8.087 7063	8.116 4146	8.144 2439	8.171 2126	127
128	8.085 6687	8.114 5568	8.142 5533	8.169 6767	128
129	8.083 6558	8.112 7231	8.140 8858	8.168 1633	129
130	8.081 6671	8.110 9128	8.139 2412	8.166 6720	130
131	8.079 7020	8.109 1257	8.137 6189	8.165 2021	131
132	8.077 7604	8.107 3612	8.136 0188	8.163 7536	132
133	8.075 8417	8.105 6192	8.134 4401	8.162 3259	133
134	8.073 9457	8.103 8991	8.132 8828	8.160 9187	134
135	8.072 0720	8.102 2006	8.131 3464	8.159 5316	135
136	8.070 2202	8.100 5234	8.129 8305	8.158 1642	136
137	8.068 3899	8.098 8671	8.128 3348	8.156 8164	137
138	8.066 5808	8.097 2315	8.126 8590	8.155 4875	138
139	8.064 7926	8.095 6160	8.125 4027	8.154 1776	139
140	8.063 0251	8.094 0205	8.123 9657	8.152 8860	140
141	8.061 2777	8.092 4445	8.122 5475	8.151 6125	141
142	8.059 5503	8.090 8879	8.121 1479	8.150 3569	142
143	8.057 8425	8.089 3503	8.119 7667	8.149 1188	143
144	8.056 1539	8.087 8313	8.118 4033	8.147 8979	144
135	8.054 4845	8.086 3308	8.117 0577	8.146 6940	145
146	8.052 8339	8.084 8484	8.115 7295	8.145 5068	146
147	8.051 2016	8.083 3838	8.114 4185	8.144 3360	147
148	8.049 5876	8.081 9367	8.113 1243	8.143 1812	148
149	8.047 9915	8.080 5069	8.111 8468	8.142 0423	149
150	8.046 4131	8.079 0943	8.110 5855	8.140 9191	150

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	¾%	⅞%	1%	1⅛%	n
151	0.0110 8797	0.0119 5910	0.0128 6294	0.0137 9784	151
152	0.0110 4862	0.0119 2117	0.0128 2659	0.0137 6317	152
153	0.0110 0984	0.0118 8381	0.0127 9079	0.0137 2905	153
154	0.0109 7162	0.0118 4701	0.0127 5554	0.0136 9547	154
155	0.0109 3395	0.0118 1075	0.0127 2084	0.0136 6243	155
156	0.0108 9680	0.0117 7502	0.0126 8666	0.0136 2992	156
157	0.0108 6019	0.0117 3981	0.0126 5300	0.0135 9791	157
158	0.0108 2409	0.0117 0512	0.0126 1986	0.0135 6642	158
159	0.0107 8849	0.0116 7093	0.0125 8720	0.0135 3541	159
160	0.0107 5340	0.0116 3724	0.0125 5504	0.0135 0489	160
161	0.0107 1878	0.0116 0402	0.0125 2336	0.0134 7484	161
162	0.0106 8465	0.0115 7128	0.0124 9215	0.0134 4526	162
163	0.0106 5098	0.0115 3901	0.0124 6141	0.0134 1614	163
164	0.0106 1777	0.0115 0720	0.0124 3111	0.0133 8746	164
165	0.0105 8502	0.0114 7583	0.0124 0126	0.0133 5923	165
166	0.0105 5270	0.0114 4490	0.0123 7185	0.0133 3142	166
167	0.0105 2083	0.0114 1441	0.0123 4286	0.0133 0404	167
168	0.0104 8937	0.0113 8434	0.0123 1430	0.0132 7707	168
169	0.0104 5834	0.0113 5469	0.0122 8614	0.0132 5051	169
170	0.0104 2772	0.0113 2544	0.0122 5840	0.0132 2435	170
171	0.0103 9751	0.0112 9660	0.0122 3105	0.0131 9858	171
172	0.0103 6769	0.0112 6816	0.0122 0409	0.0131 7319	172
173	0.0103 3827	0.0112 4010	0.0121 7751	0.0131 4819	173
174	0.0103 0922	0.0112 1242	0.0121 5132	0.0131 2356	174
175	0.0102 8056	0.0111 8512	0.0121 2549	0.0130 9929	175
176	0.0102 5226	0.0111 5818	0.0121 0003	0.0130 7537	176
177	0.0102 2433	0.0111 3161	0.0120 7492	0.0130 5182	177
178	0.0101 9676	0.0111 0539	0.0120 5016	0.0130 2860	178
179	0.0101 6954	0.0110 7952	0.0120 2575	0.0130 0573	179
180	0.0101 4267	0.0110 5399	0.0120 0168	0.0129 8319	180
181	0.0101 1613	0.0110 2880	0.0119 7794	0.0129 6097	181
182	0.0100 8993	0.0110 0394	0.0119 5453	0.0129 3908	182
183	0.0100 6406	0.0109 7941	0.0119 3144	0.0129 1750	183
184	0.0100 3851	0.0109 5520	0.0119 0867	0.0128 9624	184
185	0.0100 1328	0.0109 3130	0.0118 8621	0.0128 7528	185
186	0.0099 8837	0.0109 0771	0.0118 6405	0.0128 5462	186
187	0.0099 6376	0.0108 8443	0.0118 4219	0.0128 3425	187
188	0.0099 3945	0.0108 6145	0.0118 2063	0.0128 1418	188
189	0.0099 1544	0.0108 3876	0.0117 9936	0.0127 9439	189
190	0.0098 9173	0.0108 1637	0.0117 7838	0.0127 7488	190
191	0.0098 6830	0.0107 9425	0.0117 5768	0.0127 5564	191
192	0.0098 4516	0.0107 7242	0.0117 3725	0.0127 3668	192
193	0.0098 2230	0.0107 5087	0.0117 1710	0.0127 1798	193
194	0.0097 9971	0.0107 2959	0.0116 9721	0.0126 9955	194
195	0.0097 7739	0.0107 0857	0.0116 7759	0.0126 8137	195
196	0.0097 5534	0.0106 8782	0.0116 5822	0.0126 6345	196
197	0.0097 3355	0.0106 6733	0.0116 3911	0.0126 4577	197
198	0.0097 1202	0.0106 4709	0.0116 2026	0.0126 2834	198
199	0.0096 9074	0.0106 2711	0.0116 0164	0.0126 1115	199
200	0.0096 6972	0.0106 0737	0.0115 8328	0.0125 9420	200

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{n}^{-1}$$

n	$\frac{3}{4}\%$	$\frac{7}{8}\%$	1%	$1\frac{1}{8}\%$	n
151	8.044 8520	8.077 6983	8.109 3404	8.139 8112	151
152	8.043 3081	8.076 3199	8.108 1111	8.138 7183	152
153	8.041 7811	8.074 9558	8.106 8974	8.137 6404	153
154	8.040 2708	8.073 6087	8.105 6990	8.136 5770	154
155	8.038 7769	8.072 2774	8.104 5158	8.135 5281	155
156	8.037 2992	8.070 9616	8.103 3473	8.134 4932	156
157	8.035 8374	8.069 6613	8.102 1936	8.133 4724	157
158	8.034 3913	8.068 3759	8.101 0544	8.132 4652	158
159	8.032 9608	8.067 1055	8.099 9293	8.131 4715	159
160	8.031 5456	8.065 8498	8.097 7210	8.130 4911	160
161	8.030 1455	8.064 6085	8.097 7215	8.129 5238	161
162	8.028 7602	8.063 3815	8.096 6373	8.128 5693	162
163	8.027 3896	8.062 1686	8.095 5670	8.127 6276	163
164	8.026 0334	8.060 9695	8.094 5099	8.126 6983	164
165	8.024 6915	8.059 7841	8.093 4658	8.125 7813	165
166	8.023 3638	8.058 6121	8.902 4345	8.124 8764	166
167	8.022 0498	8.057 4534	8.091 4158	8.123 9834	167
168	8.020 7496	8.056 3079	8.090 4096	8.123 1022	168
169	8.019 4629	8.055 1752	8.089 4156	8.122 2325	169
170	8.018 1896	8.054 0553	8.088 4337	8.121 3742	170
171	8.016 9294	8.052 9479	8.087 4636	8.120 5271	171
172	8.015 6822	8.051 8527	8.086 5053	8.119 6911	172
173	8.014 4478	8.050 7701	8.085 5586	8.118 8659	173
174	8.013 2240	8.049 6993	8.084 6234	8.118 0515	174
175	8.012 0167	8.048 6405	8.083 6992	8.117 2476	175
176	8.010 8198	8.047 5934	8.082 7863	8.116 4541	176
177	8.009 6350	8.046 5578	8.081 8842	8.115 6709	177
178	8.008 4622	8.045 5337	8.080 9929	8.114 8978	178
179	8.007 3013	8.044 5208	8.080 1122	8.114 1346	179
180	8.006 1521	8.043 5190	8.079 2420	8.113 3813	180
181	8.005 0144	8.042 5282	8.078 3822	8.112 6376	181
182	8.003 8882	8.041 5483	8.077 5326	8.111 9034	182
183	8.002 7732	8.040 5790	8.076 6929	8.111 1786	183
184	8.001 6693	8.039 6202	8.075 8632	8.110 4630	184
185	8.000 5765	8.038 6718	8.075 0432	8.109 7566	185
186	7.999 4944	8.037 7338	8.074 2330	8.109 0692	186
187	7.998 4231	8.036 8058	8.073 4321	8.108 3706	187
188	7.997 3624	8.035 8878	8.072 6407	8.107 6908	188
189	7.996 3121	8.034 9797	8.071 8586	8.107 0195	189
190	7.995 2721	8.034 0814	8.071 0856	8.106 3568	190
191	7.994 2424	8.033 1927	8.070 3216	8.105 7024	191
192	7.993 2223	8.032 3134	8.069 5664	8.105 0562	192
193	7.992 2130	8.031 4436	8.068 8200	8.104 4182	193
194	7.991 2131	8.030 5830	8.068 0823	8.103 7882	194
195	7.990 2229	8.029 7316	8.067 3532	8.103 1662	195
196	7.989 2423	8.028 8892	8.066 6324	8.102 5519	196
197	7.988 2712	8.028 0557	8.065 9199	8.101 9453	197
198	7.987 3095	8.027 2310	8.065 2157	8.101 3463	198
199	7.986 3570	8.026 4151	8.064 5196	8.100 7547	199
200	7.985 4137	8.025 6077	8.063 8314	8.100 1706	200

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	1.0125 0000	1.0137 5000	1.0150 0000	1.0175 0000	1
2	0.5093 9441	0.5103 3597	0.5112 7792	0.5131 6295	2
3	0.3417 0117	0.3425 4173	0.3433 8296	0.3450 6746	3
4	0.2578 6102	0.2586 5243	0.2594 4478	0.2610 3237	4
5	0.2075 6211	0.2083 2510	0.2090 8932	0.2106 2142	5
6	0.1740 3381	0.1747 7877	0.1755 2521	0.1770 2256	6
7	0.1500 8872	0.1508 2157	0.1515 5616	0.1530 3059	7
8	0.1321 3314	0.1328 5758	0.1335 8402	0.1350 4292	8
9	0.1181 7055	0.1188 8906	0.1196 0982	0.1210 5813	9
10	0.1070 0307	0.1077 1737	0.1084 3418	0.1098 7534	10
11	0.0978 6839	0.0985 7973	0.0992 9384	0.1007 3038	11
12	0.0902 5831	0.0909 6764	0.0916 7999	0.0931 1377	12
13	0.0838 2100	0.0845 2903	0.0852 4036	0.0866 7283	13
14	0.0783 0515	0.0790 1246	0.0797 2332	0.0811 5562	14
15	0.0735 2646	0.0742 3351	0.0749 4436	0.0763 7739	15
16	0.0693 4672	0.0700 5388	0.0707 6508	0.0721 9958	16
17	0.0656 6023	0.0663 6780	0.0670 7966	0.0685 1623	17
18	0.0623 8479	0.0630 9301	0.0638 0578	0.0652 4492	18
19	0.0594 5548	0.0601 6457	0.0608 7847	0.0623 2061	19
20	0.0568 2039	0.0575 3054	0.0582 4574	0.0596 9122	20
21	0.0544 3748	0.0551 4884	0.0558 6550	0.0573 1464	21
22	0.0522 7238	0.0529 8507	0.0537 0331	0.0551 5638	22
23	0.0502 9666	0.0510 1080	0.0517 3075	0.0531 8796	23
24	0.0484 8665	0.0492 0235	0.0499 2410	0.0513 8565	24
25	0.0468 2247	0.0475 3981	0.0482 6345	0.0497 2952	25
26	0.0452 8729	0.0460 0635	0.0467 3196	0.0482 0269	26
27	0.0438 6677	0.0445 8763	0.0453 1527	0.0467 9079	27
28	0.0425 4863	0.0432 7134	0.0440 0108	0.0454 8151	28
29	0.0413 2228	0.0420 4689	0.0427 7878	0.0442 6424	29
30	0.0401 7854	0.0409 0511	0.0416 3919	0.0431 2975	30
31	0.0391 0942	0.0398 3798	0.0405 7430	0.0420 7005	31
32	0.0381 0791	0.0388 3850	0.0395 7710	0.0410 7812	32
33	0.0371 6786	0.0379 0053	0.0386 4144	0.0401 4779	33
34	0.0362 8387	0.0370 1864	0.0377 6189	0.0392 7363	34
35	0.0354 5111	0.0361 8801	0.0369 3363	0.0384 5082	35
36	0.0346 6533	0.0354 0438	0.0361 5240	0.0376 7507	36
37	0.0339 2270	0.0346 6394	0.0354 1437	0.0369 4257	37
38	0.0332 1983	0.0339 6327	0.0347 1613	0.0362 4990	38
39	0.0325 5365	0.0332 9931	0.0340 5463	0.0355 9399	39
40	0.0319 2141	0.0326 6931	0.0334 2710	0.0349 7209	40
41	0.0313 2063	0.0320 7078	0.0328 3106	0.0343 8170	41
42	0.0307 4906	0.0315 0148	0.0322 6426	0.0338 2057	42
43	0.0302 0466	0.0309 5936	0.0317 2465	0.0332 8666	43
44	0.0296 8557	9.0304 4257	0.0312 1038	0.0327 7810	44
45	0.0291 9012	0.0299 4941	0.0307 1976	0.0322 9321	45
46	0.0287 1675	0.0294 7836	0.0302 5125	0.0318 3043	46
47	0.0282 6406	0.0290 2799	0.0298 0342	0.0313 8836	47
48	0.0278 3075	0.0285 9701	0.0293 7500	0.0309 6569	48
49	0.0274 1563	0.0281 8424	0.0289 6478	0.0305 6124	49
50	0.0270 1763	0.0277 8857	0.0285 7168	0.0301 7391	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
1	0.005 3951	0.005 9308	0.006 4661	0.007 5344	1
2	9.707 0543	9.707 8561	9.708 6571	9.710 2553	2
3	9.533 6465	9.534 7135	9.535 7787	9.537 9040	3
4	9.411 3858	9.412 7166	9.414 0449	9.416 6944	4
5	9.317 1481	9.318 7416	9.320 3318	9.323 5025	5
6	9.240 6337	9.242 4887	9.244 3395	9.248 0286	6
7	9.176 3481	9.178 4635	9.180 5736	9.184 7782	7
8	9.121 0118	9.123 3863	9.125 7545	9.130 4718	8
9	9.072 5094	9.075 1418	9.077 7668	9.082 9940	9
10	9.029 3963	9.032 2858	9.035 1662	9.040 9002	10
11	8.990 6426	8.993 7877	8.996 9223	9.003 1605	11
12	8.955 4873	8.958 8869	8.962 2746	8.969 0139	12
13	8.923 3527	8.927 0059	8.930 6453	8.937 8830	13
14	8.893 7904	8.897 6956	8.901 5854	8.909 3186	14
15	8.866 4436	8.870 6000	8.874 7389	8.882 9648	15
16	8.841 0260	8.845 4322	8.849 8190	8.858 5346	16
17	8.817 3024	8.821 9574	8.826 5908	8.835 7935	17
18	8.795 0787	8.799 9812	8.804 8601	8.814 5467	18
19	8.774 1919	8.779 3409	8.784 4637	8.794 6317	19
20	8.754 5041	8.759 8985	8.765 2641	8.775 9105	20
21	8.735 8982	8.741 5363	8.747 1437	8.758 2655	21
22	8.718 2723	8.724 1535	8.730 0011	8.741 5957	22
23	8.701 5391	8.707 6622	8.713 7488	8.725 8134	23
24	8.685 6223	8.691 9858	8.698 3103	8.710 8418	24
25	8.670 4543	8.677 0575	8.683 6184	8.696 6141	25
26	8.655 9764	8.662 8178	8.669 6140	8.683 0712	26
27	8.642 1357	8.649 2144	8.656 2445	8.670 1604	27
28	8.628 8856	8.636 2004	8.643 4633	8.657 8349	28
29	8.616 1843	8.623 7340	8.631 2284	8.646 0529	29
30	8.603 9944	8.611 7775	8.619 5022	8.634 7770	30
31	8.592 2814	8.600 2973	8.608 2510	8.623 9731	31
32	8.581 0152	8.589 2625	8.597 4439	8.613 6106	32
33	8.570 1677	8.578 6453	8.587 0533	8.603 6616	33
34	8.559 7136	8.568 4204	8.577 0536	8.594 1010	34
35	8.549 6299	8.558 5647	8.567 4220	8.584 9055	35
36	8.539 8953	8.549 0570	8.558 1371	8.576 0541	36
37	8.530 4906	8.539 8779	8.549 1795	8.567 5271	37
38	8.521 3974	8.531 0094	8.540 5313	8.559 3068	38
39	8.512 5998	8.522 4352	8.532 1762	8.551 3767	39
40	8.504 0822	8.514 1400	8.524 0987	8.543 7216	40
41	8.495 8305	8.506 1096	8.516 2850	8.536 3274	41
42	8.487 8319	8.498 3309	8.508 7217	8.529 1810	42
43	8.480 0740	8.490 7919	8.501 3968	8.522 2703	43
44	8.472 5455	8.483 4812	8.494 2990	8.515 5838	44
45	8.465 2359	8.476 3883	8.487 4178	8.509 1112	45
46	8.458 1353	8.469 5033	8.480 7433	8.502 8426	46
47	8.451 2346	8.462 8170	8.474 2661	8.496 7687	47
48	8.444 5249	8.456 3206	8.467 9779	8.490 8809	48
49	8.437 9983	8.450 0062	8.461 8703	8.485 1710	49
50	8.431 6472	8.443 8671	8.455 9359	8.479 6316	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	0.0266 3571	0.0274 0900	0.0281 9469	0.0298 0269	51
52	0.0262 6897	0.0270 4461	0.0278 3287	0.0294 4665	52
53	0.0259 1653	0.0266 9453	0.0274 8537	0.0291 0492	53
54	0.0255 7760	0.0263 5797	0.0271 5138	0.0287 7672	54
55	0.0252 5145	0.0260 3418	0.0268 3018	0.0284 6129	55
56	0.0249 3739	0.0257 2249	0.0265 2106	0.0281 5795	56
57	0.0246 3478	0.0254 2225	0.0262 2341	0.0278 6606	57
58	0.0243 4303	0.0251 3287	0.0259 3661	0.0275 8503	58
59	0.0240 6158	0.0248 5380	0.0256 6012	0.0273 1430	59
60	0.0237 8993	0.0245 8452	0.0253 9343	0.0270 5336	60
61	0.0235 2758	0.0243 2455	0.0251 3604	0.0268 0172	61
62	0.0232 7410	0.0240 7344	0.0248 8751	0.0265 5892	62
63	0.0230 2904	0.0238 3076	0.0246 4741	0.0263 2455	63
64	0.0227 9203	0.0235 9612	0.0244 1534	0.0260 9821	64
65	0.0225 6268	0.0233 6914	0.0241 9094	0.0258 7952	65
66	0.0223 4065	0.0231 4949	0.0239 7386	0.0256 6813	66
67	0.0221 2560	0.0229 3682	0.0237 6376	0.0254 6372	67
68	0.0219 1724	0.0227 3082	0.0235 6033	0.0252 6596	68
69	0.0217 1527	0.0225 3122	0.0233 6329	0.0250 7459	69
70	0.0215 1941	0.0223 3773	0.0231 7235	0.0248 8930	70
71	0.0213 2941	0.0221 5009	0.0229 8727	0.0247 0985	71
72	0.0211 4501	0.0219 6806	0.0228 0779	0.0245 3600	72
73	0.0209 6600	0.0217 9140	0.0226 3368	0.0243 6750	73
74	0.0207 9215	0.0216 1991	0.0224 6473	0.0242 0413	74
75	0.0206 2325	0.0214 5336	0.0223 0072	0.0240 4570	75
76	0.0204 5910	0.0212 9157	0.0221 4146	0.0238 9200	76
77	0.0202 9953	0.0211 3435	0.0219 8676	0.0237 4284	77
78	0.0201 4435	0.0209 8151	0.0218 3645	0.0235 9806	78
79	0.0199 9341	0.0208 3290	0.0216 9036	0.0234 5748	79
80	0.0198 4652	0.0206 8836	0.0215 4832	0.0233 2093	80
81	0.0197 0356	0.0205 4772	0.0214 1019	0.0231 8828	81
82	0.0195 6437	0.0204 1086	0.0212 7583	0.0230 5936	82
83	0.0194 2881	0.0202 7762	0.0211 4509	0.0229 3406	83
84	0.0192 9675	0.0201 4789	0.0210 1784	0.0228 1223	84
85	0.0191 6808	0.0200 2153	0.0208 9396	0.0226 9375	85
86	0.0190 4267	0.0198 9843	0.0207 7333	0.0225 7850	86
87	0.0189 2041	0.0197 7847	0.0206 5584	0.0224 6636	87
88	0.0188 0119	0.0196 6155	0.0205 4138	0.0223 5724	88
89	0.0186 8490	0.0195 4756	0.0204 2984	0.0222 5102	89
90	0.0185 7146	0.0194 3641	0.0203 2113	0.0221 4760	90
91	0.0184 6076	0.0193 2799	0.0202 1516	0.0220 4690	91
92	0.0183 5271	0.0192 2222	0.0201 1182	0.0219 4882	92
93	0.0182 4724	0.0191 1902	0.0200 1104	0.0218 5327	93
94	0.0181 4425	0.0190 1829	0.0199 1273	0.0217 6017	94
95	0.0180 4366	0.0189 1997	0.0198 1681	0.0216 6944	95
96	0.0179 4540	0.0188 2397	0.0197 2321	0.0215 8101	96
97	0.0178 4941	0.0187 3022	0.0196 3186	0.0214 9480	97
98	0.0177 5560	0.0186 3866	0.0195 4268	0.0214 1074	98
99	0.0176 6391	0.0185 4921	0.0194 5560	0.0213 2876	99
100	0.0175 7428	0.0184 6181	0.0193 7057	0.0212 4880	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}|}^{-1}$$

n	$1\frac{1}{4}\%$	$1\frac{3}{8}\%$	$1\frac{1}{2}\%$	$1\frac{3}{4}\%$	n
51	8.425 4644	8.437 8933	8.450 1674	8.474 2556	51
52	8.419 4430	8.432 0808	8.444 5581	8.469 0359	52
53	8.413 5768	8.426 4223	8.439 1015	8.463 9665	53
54	8.407 8599	8.420 9119	8.433 7920	8.459 0412	54
55	8.402 2863	8.415 5439	8.428 6236	8.454 2545	55
56	8.396 8510	8.410 3130	8.423 5909	8.449 6011	56
57	8.391 5487	8.405 2139	8.418 6891	8.445 0756	57
58	8.386 3747	8.400 2421	8.413 9132	8.440 6734	58
59	8.381 3243	8.395 3928	8.409 2589	8.436 3901	59
60	8.376 3932	8.390 6618	8.404 7214	8.432 2212	60
61	8.371 5774	8.386 0449	8.400 2969	8.428 1627	61
62	8.366 8729	8.381 5381	8.395 9815	8.424 2105	62
63	8.362 2759	8.377 1379	8.391 7713	8.420 3611	63
64	8.357 7830	8.372 8405	8.387 6629	8.416 6107	64
65	8.353 3906	8.368 6428	8.383 6528	8.412 9562	65
66	8.349 0958	8.364 5414	8.379 7380	8.409 3942	66
67	8.344 8952	8.360 5304	8.375 9151	8.405 9218	67
68	8.340 7859	8.356 6152	8.372 1814	8.402 5360	68
69	8.336 7652	8.352 7847	8.368 5340	8.399 2338	69
70	8.332 8303	8.349 0390	8.364 9702	8.396 0128	70
71	8.328 9788	8.345 3755	8.361 4874	8.392 8703	71
72	8.325 2080	8.341 7917	8.358 0832	8.389 8037	72
73	8.321 5156	8.338 2852	8.354 7552	8.386 8109	73
74	8.317 8994	8.334 8538	8.351 5013	8.383 8895	74
75	8.314 3571	8.331 4953	8.348 3189	8.381 0374	75
76	8.310 8866	8.328 2077	8.345 2063	8.378 2526	76
77	8.307 4861	8.324 9888	8.342 1613	8.375 5329	77
78	8.304 1534	8.321 8367	8.339 1821	8.372 8764	78
79	8.300 8868	8.318 7498	8.336 2668	8.370 2814	79
80	8.297 6845	8.315 7260	8.333 4135	8.367 7460	80
81	8.294 5447	8.312 7637	8.330 6207	8.365 2685	81
82	8.291 4658	8.309 8613	8.327 8865	8.362 8473	82
83	8.288 4462	8.307 0171	8.325 2095	8.360 4810	83
84	8.285 4843	8.304 2296	8.322 5881	8.358 1678	84
85	8.282 5787	8.301 4973	8.320 0208	8.355 9062	85
86	8.279 7279	8.298 8188	8.317 5062	8.353 6950	86
87	8.276 9306	8.296 1927	8.315 0429	8.351 5327	87
88	8.274 1853	8.293 6178	8.312 6296	8.349 4182	88
89	8.271 4909	8.291 0926	8.310 2650	8.347 3500	89
90	8.268 8462	8.288 6160	8.307 9480	8.345 3268	90
91	8.266 2496	8.286 1867	8.305 6771	8.343 3476	91
92	8.263 7003	8.283 8036	8.303 4514	8.341 4112	92
93	8.261 1972	8.281 4656	8.301 2696	8.339 5165	93
94	8.258 7390	8.279 1716	8.299 1308	8.337 6624	94
95	8.256 3246	8.276 9204	8.297 0338	8.335 8478	95
96	8.253 9533	8.274 7112	8.294 9777	8.334 0719	96
97	8.251 6238	8.272 5430	8.292 9615	8.332 3335	97
98	8.249 3354	8.270 4147	8.290 9841	8.330 6316	98
99	8.247 0869	8.268 3254	8.289 0448	8.328 9657	99
100	8.244 8776	8.266 2742	8.287 1425	8.327 3345	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	2%	2¼%	2½%	2¾%	n
1	1.0200 0000	1.0225 0000	1.0250 0000	1.0275 0000	1
2	0.5150 4950	0.5169 3758	0.5188 2716	0.5207 1825	2
3	0.3467 5467	0.3484 4458	0.3501 3717	0.3518 3243	3
4	0.2626 2375	0.2642 1893	0.2658 1788	0.2674 2059	4
5	0.2121 5839	0.2137 0021	0.2152 4686	0.2167 9832	5
6	0.1785 2581	0.1800 3496	0.1815 4997	0.1830 7083	6
7	0.1545 1196	0.1560 0025	0.1574 9543	0.1589 9747	7
8	0.1365 0980	0.1379 8462	0.1394 6735	0.1409 5795	8
9	0.1225 1544	0.1239 8170	0.1254 5689	0.1269 4095	9
10	0.1113 2653	0.1127 8768	0.1142 5876	0.1157 3972	10
11	0.1021 7794	0.1036 3649	0.1051 0596	0.1065 8629	11
12	0.0945 5960	0.0960 1740	0.0974 8713	0.0989 6871	12
13	0.0881 1835	0.0895 7686	0.0910 4827	0.0925 3252	13
14	0.0826 0197	0.0840 6230	0.0855 3653	0.0870 2457	14
15	0.0778 2547	0.0792 8852	0.0807 6646	0.0822 5917	15
16	0.0736 5013	0.0751 1663	0.0765 9899	0.0780 9710	16
17	0.0699 6984	0.0714 4039	0.0729 2777	0.0744 3186	17
18	0.0667 0210	0.0681 7720	0.0696 7008	0.0711 8063	18
19	0.0637 8177	0.0652 6182	0.0667 6062	0.0682 7802	19
20	0.0611 5672	0.0626 4207	0.0641 4713	0.0656 7173	20
21	0.0587 8477	0.0602 7572	0.0617 8733	0.0633 1941	21
22	0.0566 3140	0.0581 2821	0.0596 4661	0.0611 8640	22
23	0.0546 6810	0.0561 7097	0.0576 9638	0.0592 4410	23
24	0.0528 7110	0.0543 8023	0.0559 1282	0.0574 6863	24
25	0.0512 2044	0.0527 3599	0.0542 7592	0.0558 3997	25
26	0.0496 9923	0.0512 2134	0.0527 6875	0.0543 4116	26
27	0.0482 9309	0.0498 2188	0.0513 7687	0.0529 5776	27
28	0.0469 8967	0.0485 2525	0.0500 8793	0.0516 7738	28
29	0.0457 7836	0.0473 2081	0.0488 9127	0.0504 8935	29
30	0.0446 4992	0.0461 9934	0.0477 7764	0.0493 8442	30
31	0.0435 9635	0.0451 5280	0.0467 3900	0.0483 5453	31
32	0.0426 1061	0.0441 7415	0.0457 6831	0.0473 9263	32
33	0.0416 8653	0.0432 5722	0.0448 5938	0.0464 9253	33
34	0.0408 1867	0.0423 9655	0.0440 0675	0.0456 4875	34
35	0.0400 0221	0.0415 8731	0.0432 0558	0.0448 5645	35
36	0.0392 3285	0.0408 2522	0.0424 5158	0.0441 1132	36
37	0.0385 0678	0.0401 0643	0.0417 4090	0.0434 0953	37
38	0.0378 2057	0.0394 2753	0.0410 7012	0.0427 4764	38
39	0.0371 7114	0.0387 8543	0.0404 3615	0.0421 2256	39
40	0.0365 5575	0.0381 7738	0.0398 3623	0.0415 3151	40
41	0.0359 7188	0.0376 0087	0.0392 6786	0.0409 7200	41
42	0.0354 1729	0.0370 5364	0.0387 2876	0.0404 4175	42
43	0.0348 8993	0.0365 3364	0.0382 1688	0.0399 3871	43
44	0.0343 8794	0.0360 3901	0.0377 3037	0.0394 6100	44
45	0.0339 0962	0.0355 6805	0.0372 6752	0.0390 0693	45
46	0.0334 5342	0.0351 1921	0.0368 2676	0.0385 7493	46
47	0.0330 1792	0.0346 9107	0.0364 0669	0.0381 6358	47
48	0.0326 0184	0.0342 8233	0.0360 0599	0.0377 7158	48
49	0.0322 0396	0.0338 9179	0.0356 2348	0.0373 9773	49
50	0.0318 2321	0.0335 1836	0.0352 5806	0.0370 4092	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}|}^{-1}$$

n	2%	2¼%	2½%	2¾%	n
1	0.008 6001	0.009 6634	0.010 7239	0.011 7818	1
2	9.711 8490	9.713 4381	9.715 0227	9.716 6028	2
3	9.540 0223	9.542 1337	9.544 2382	9.456 3359	3
4	9.419 3340	9.421 9639	9.424 5842	9.427 1949	4
5	9.326 6602	9.329 8049	9.332 9368	9.336 0559	5
6	9.251 7010	9.255 3568	9.258 9962	9.262 6192	6
7	9.188 9621	9.193 1253	9.197 2679	9.201 3902	7
8	9.135 1638	9.139 8307	9.144 4725	9.149 0896	8
9	9.088 1908	9.093 3576	9.098 4945	9.103 6018	9
10	9.046 5986	9.052 2617	9.057 8895	9.063 4824	10
11	9.009 3571	9.015 5127	9.021 6273	9.027 7013	11
12	8.975 7056	8.982 3499	8.988 9472	8.995 4979	12
13	8.945 0664	8.952 1958	8.959 2717	8.966 2944	13
14	8.916 9904	8.924 6012	8.932 1516	8.939 6419	14
15	8.891 1218	8.899 2103	8.907 2310	8.915 1843	15
16	8.867 1735	8.875 7361	8.884 2230	8.892 6349	16
17	8.844 9109	8.853 9438	8.862 8929	8.871 7587	17
18	8.824 1395	8.833 6391	8.843 0463	8.852 3618	18
19	8.804 6965	8.814 6591	8.824 5204	8.834 2810	19
20	8.786 4442	8.796 8661	8.807 1772	8.817 3785	20
21	8.769 2648	8.780 1424	8.790 8994	8.801 5369	21
22	8.753 0573	8.764 3869	8.775 5857	8.786 6549	22
23	8.737 7340	8.749 5119	8.761 1485	8.772 6451	23
24	8.723 2183	8.735 4411	8.747 5114	8.759 4309	24
25	8.709 4433	8.722 1071	8.734 6072	8.746 9452	25
26	8.696 3496	8.709 4509	8.722 3768	8.735 1290	26
27	8.683 8849	8.697 4201	8.710 7677	8.723 9296	27
28	8.672 0025	8.685 9678	8.699 7331	8.713 3005	28
29	8.660 6602	8.675 0522	8.689 2313	8.703 1998	29
30	8.649 8207	8.664 6358	8.679 2247	8.693 5900	30
31	8.639 4501	8.654 6847	8.669 6794	8.684 4372	31
32	8.629 5177	8.645 1681	8.660 5649	8.675 7108	32
33	8.619 9958	8.636 0586	8.651 8533	8.667 3832	33
34	8.610 8589	8.627 3305	8.643 5193	8.659 4288	34
35	8.602 0840	8.618 9609	8.635 5399	8.651 8249	35
36	8.593 6499	8.610 9284	8.627 8939	8.644 5501	36
37	8.585 5372	8.603 2140	8.620 5618	8.637 5851	37
38	8.577 7280	8.595 7995	8.613 5260	8.630 9121	38
39	8.570 2059	8.588 6687	8.606 7698	8.624 5147	39
40	8.562 9557	8.581 8061	8.600 2783	8.618 3778	40
41	8.555 9632	8.575 1978	8.594 0372	8.612 4872	41
42	8.549 2154	8.568 8308	8.588 0335	8.606 8300	42
43	8.542 7002	8.562 6930	8.582 2553	8.601 3940	43
44	8.536 4062	8.556 7729	8.576 6911	8.596 1681	44
45	8.530 3228	8.551 0601	8.571 3304	8.591 1417	45
46	8.524 4404	8.545 5447	8.566 1635	8.586 3052	46
47	8.518 7497	8.540 2177	8.561 1812	8.581 6491	47
48	8.513 2420	8.535 0703	8.556 3748	8.577 1651	48
49	8.507 9093	8.530 0946	8.551 7364	8.572 8452	49
50	8.502 7440	8.525 2828	8.547 2583	8.568 6818	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	2%	2¼%	2½%	2¾%	n
51	0.0314 5856	0.0331 6102	0.0349 0870	0.0367 0014	51
52	0.0311 0909	0.0328 1884	0.0345 7446	0.0363 7444	52
53	0.0307 7392	0.0324 9094	0.0342 5449	0.0360 6297	53
54	0.0304 5226	0.0321 7654	0.0339 4799	0.0357 6491	54
55	0.0301 4337	0.0318 7489	0.0336 5419	0.0354 7953	55
56	0.0298 4656	0.0315 8530	0.0333 7243	0.0352 0612	56
57	0.0295 6120	0.0313 0712	0.0331 0204	0.0349 4404	57
58	0.0292 8667	0.0310 3977	0.0328 4244	0.0346 9270	58
59	0.0290 2243	0.0307 8268	0.0325 9307	0.0344 5153	59
60	0.0287 6797	0.0305 3533	0.0323 5340	0.0342 2002	60
61	0.0285 2278	0.0302 9724	0.0321 2294	0.0339 9767	61
62	0.0282 8643	0.0300 6795	0.0319 0126	0.0337 8402	62
63	0.0280 5848	0.0298 4704	0.0316 8790	0.0335 7866	63
64	0.0278 3855	0.0296 3411	0.0314 8249	0.0333 8118	64
65	0.0276 2624	0.0294 2878	0.0312 8463	0.0331 9120	65
66	0.0274 2122	0.0292 3070	0.0310 9398	0.0330 0837	66
67	0.0272 2316	0.0290 3955	0.0309 1021	0.0328 3236	67
68	0.0270 3173	0.0288 5500	0.0307 3300	0.0326 6285	68
69	0.0268 4665	0.0286 7677	0.0305 6206	0.0324 9955	69
70	0.0266 6765	0.0285 0458	0.0303 9712	0.0323 4218	70
71	0.0264 9446	0.0283 3816	0.0302 3790	0.0321 9048	71
72	0.0263 2683	0.0281 7728	0.0300 8417	0.0320 4420	72
73	0.0261 6454	0.0280 2169	0.0299 3568	0.0319 0311	73
74	0.0260 0736	0.0278 7118	0.0297 9222	0.0317 6698	74
75	0.0258 5508	0.0277 2554	0.0296 5358	0.0316 3560	75
76	0.0257 0751	0.0275 8457	0.0295 1956	0.0315 0878	76
77	0.0255 6447	0.0274 4808	0.0293 8997	0.0313 8633	77
78	0.0254 2576	0.0273 1589	0.0292 6463	0.0312 6806	78
79	0.0252 9123	0.0271 8784	0.0291 4338	0.0311 5382	79
80	0.0251 6071	0.0270 6376	0.0290 2605	0.0310 4342	80
81	0.0250 3405	0.0269 4350	0.0289 1248	0.0309 3674	81
82	0.0249 1110	0.0268 2692	0.0288 0254	0.0308 3361	82
83	0.0247 9173	0.0267 1387	0.0286 9608	0.0307 3389	83
84	0.0246 7581	0.0266 0423	0.0285 9298	0.0306 3747	84
85	0.0245 6321	0.0264 9787	0.0284 9310	0.0305 4420	85
86	0.0244 5381	0.0263 9467	0.0283 9633	0.0304 5397	86
87	0.0243 4750	0.0262 9452	0.0283 0255	0.0303 6667	87
88	0.0242 4416	0.0261 9730	0.0282 1165	0.0302 8219	88
89	0.0241 4370	0.0261 0291	0.0281 2353	0.0302 0041	89
90	0.0240 4602	0.0260 1126	0.0280 3809	0.0301 2125	90
91	0.0239 5101	0.0259 2224	0.0279 5523	0.0300 4460	91
92	0.0238 5859	0.0258 3577	0.0278 7486	0.0299 7038	92
93	0.0237 6868	0.0257 5176	0.0277 9690	0.0298 9850	93
94	0.0236 8118	0.0256 7012	0.0277 2126	0.0298 2887	94
95	0.0235 9602	0.0255 9078	0.0276 4786	0.0297 6141	95
96	0.0235 1313	0.0255 1366	0.0275 7662	0.0296 9605	96
97	0.0234 3242	0.0254 3868	0.0275 0747	0.0296 3272	97
98	0.0233 5383	0.0253 6578	0.0274 4034	0.0295 7134	98
99	0.0232 7729	0.0252 9489	0.0273 7517	0.0295 1185	99
100	0.0232 0274	0.0252 2594	0.0273 1188	0.0294 5418	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{n|}$$

n	2%	2¼%	2½%	2¾%	n
51	8.497 7389	8.520 6279	8.542 9336	8.564 6678	51
52	8.492 8873	8.516 1231	8.538 7555	8.560 7964	52
53	8.488 1829	8.511 7623	8.534 7176	8.557 0616	53
54	8.483 6197	8.507 5394	8.530 8140	8.553 4572	54
55	8.479 1919	8.503 4488	8.527 0392	8.549 9779	55
56	8.474 8944	8.499 4850	8.523 3878	8.546 6183	56
57	8.470 7221	8.495 6433	8.519 8548	8.543 3732	57
58	8.466 6700	8.491 9186	8.516 4354	8.540 2381	58
59	8.462 7339	8.488 3065	8.513 1253	8.537 2085	59
60	8.458 9091	8.484 8027	8.509 9198	8.534 2803	60
61	8.455 1919	8.481 4030	8.506 8153	8.531 4492	61
62	8.451 5782	8.478 1038	8.503 8078	8.528 7114	62
63	8.448 0643	8.474 9013	8.500 8936	8.526 0634	63
64	8.444 6466	8.471 7919	8.498 0691	8.523 5017	64
65	8.441 3218	8.468 7723	8.495 3311	8.521 0230	65
66	8.438 0868	8.465 8392	8.492 6765	8.518 6242	66
67	8.434 9385	8.462 9899	8.490 1020	8.516 3021	67
68	8.431 8739	8.460 2211	8.487 6050	8.514 0542	68
69	8.428 8902	8.457 5303	8.485 1828	8.511 8774	69
70	8.425 9848	8.454 9148	8.482 8324	8.509 7694	70
71	8.423 1551	8.452 3718	8.480 5517	8.507 7275	71
72	8.420 3987	8.449 8991	8.478 3380	8.505 7496	72
73	8.417 7131	8.447 4944	8.476 1892	8.503 8330	73
74	8.415 0963	8.445 1555	8.474 1029	8.501 9760	74
75	8.412 5460	8.442 8800	8.472 0772	8.500 1761	75
76	8.410 0601	8.440 6662	8.470 1100	8.498 4317	76
77	8.407 7368	8.438 5121	8.468 1992	8.496 7405	77
78	8.405 2740	8.436 4154	8.466 3431	8.495 1011	78
79	8.402 9699	8.434 3748	8.464 5400	8.493 5112	79
80	8.400 7229	8.432 3882	8.462 7879	8.491 9697	80
81	8.398 5311	8.430 4541	8.461 0854	8.490 4745	81
82	8.396 3929	8.428 5709	8.459 4308	8.489 0243	82
83	8.394 3069	8.426 7370	8.457 8226	8.487 6176	83
84	8.392 2715	8.424 9508	8.456 2595	8.486 2529	84
85	8.390 2852	8.423 2110	8.454 7398	8.484 9288	85
86	8.388 3466	8.421 5163	8.453 2633	8.483 6440	86
87	8.386 4544	8.419 8653	8.451 8256	8.482 3973	87
88	8.384 6072	8.418 2566	8.450 4285	8.481 1872	88
89	8.382 8039	8.416 6890	8.449 0699	8.480 0129	89
90	8.381 0432	8.415 1614	8.447 7485	8.478 8731	90
91	8.379 3239	8.413 6725	8.446 4631	8.477 7665	91
92	8.377 6449	8.412 2215	8.445 2127	8.476 6923	92
93	8.376 0050	8.410 8069	8.443 9963	8.475 6493	93
94	8.374 4035	8.409 4280	8.442 8129	8.474 6368	94
95	8.372 8388	8.408 0836	8.441 6615	8.473 6535	95
96	8.371 3105	8.406 7728	8.440 5410	8.472 6988	96
97	8.369 8172	8.405 4947	8.439 4507	8.471 7716	97
98	8.368 3581	8.404 2483	8.438 3896	8.470 8710	98
99	8.366 9325	8.403 0328	8.437 3567	8.469 9964	99
100	8.365 5394	8.401 8473	8.436 3516	8.469 1469	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	3%	3½%	4%	4½%	n
1	1.0300 0000	1.0350 0000	1.0400 0000	1.0450 0000	1
2	0.5226 1084	0.5264 0049	0.5301 9608	0.5339 9756	2
3	0.3535 3036	0.3569 3418	0.3603 4854	0.3637 7336	3
4	0.2690 2705	0.2722 5114	0.2754 9005	0.2787 4365	4
5	0.2183 5457	0.2214 8137	0.2246 2711	0.2277 9164	5
6	0.1845 9750	0.1876 6821	0.1907 6190	0.1938 7839	6
7	0.1605 0635	0.1635 4449	0.1666 0961	0.1697 0147	7
8	0.1424 5639	0.1454 7665	0.1485 2783	0.1516 0965	8
9	0.1284 3386	0.1314 4601	0.1344 9299	0.1375 7447	9
10	0.1172 3051	0.1202 4137	0.1232 9094	0.1263 7882	10
11	0.1080 7745	0.1110 9197	0.1141 4904	0.1172 4818	11
12	0.1004 6209	0.1034 8395	0.1065 5217	0.1096 6619	12
13	0.0940 2954	0.0970 6157	0.1001 4373	0.1032 7535	13
14	0.0885 2634	0.0915 7073	0.0946 6897	0.0978 2032	14
15	0.0837 6658	0.0868 2507	0.0899 4110	0.0931 1381	15
16	0.0796 1085	0.0826 8483	0.0858 2000	0.0890 1537	16
17	0.0759 5253	0.0790 4313	0.0821 9852	0.0854 1758	17
18	0.0727 0870	0.0758 1684	0.0789 9333	0.0822 3690	18
19	0.0698 1388	0.0729 4033	0.0761 3862	0.0794 0734	19
20	0.0672 1571	0.0703 6108	0.0735 8175	0.0768 7614	20
21	0.0648 7178	0.0680 3659	0.0712 8011	0.0746 0057	21
22	0.0627 4739	0.0659 3207	0.0691 9881	0.0725 4565	22
23	0.0608 1390	0.0640 1880	0.0673 0906	0.0706 8249	23
24	0.0590 4742	0.0622 7283	0.0655 8683	0.0689 8703	24
25	0.0574 2787	0.0606 7404	0.0640 1196	0.0674 3903	25
26	0.0559 3829	0.0592 0540	0.0625 6738	0.0660 2137	26
27	0.0545 6421	0.0578 5241	0.0612 3854	0.0647 1946	27
28	0.0532 9323	0.0566 0265	0.0600 1298	0.0635 2081	28
29	0.0521 1467	0.0554 4538	0.0588 7993	0.0624 1461	29
30	0.0510 1926	0.0543 7133	0.0578 3010	0.0613 9154	30
31	0.0499 9893	0.0533 7240	0.0568 5535	0.0604 4345	31
32	0.0490 4662	0.0524 4150	0.0559 4859	0.0595 6320	32
33	0.0481 5612	0.0515 7242	0.0551 0357	0.0587 4453	33
34	0.0473 2196	0.0507 5966	0.0543 1477	0.0579 8191	34
35	0.0465 3929	0.0499 9835	0.0535 7732	0.0572 7045	35
36	0.0458 0379	0.0492 8416	0.0528 8688	0.0566 0578	36
37	0.0451 1162	0.0486 1325	0.0522 3957	0.0559 8402	37
38	0.0444 5934	0.0479 8214	0.0516 3192	0.0554 0169	38
39	0.0438 4385	0.0473 8775	0.0510 6083	0.0548 5567	39
40	0.0432 6238	0.0468 2728	0.0505 2349	0.0543 4315	40
41	0.0427 1241	0.0462 9822	0.0500 1738	0.0538 6158	41
42	0.0421 9167	0.0457 9828	0.0495 4020	0.0534 0868	42
43	0.0416 9811	0.0453 2539	0.0490 8989	0.0529 8235	43
44	0.0412 2985	0.0448 7768	0.0486 6454	0.0525 8071	44
45	0.0407 8518	0.0444 5343	0.0482 6246	0.0522 0202	45
46	0.0403 6254	0.0440 5108	0.0478 8205	0.0518 4471	46
47	0.0399 6051	0.0436 6919	0.0475 2189	0.0515 0734	47
48	0.0395 7777	0.0433 0646	0.0471 8065	0.0511 8858	48
49	0.0392 1314	0.0429 6167	0.0468 5712	0.0508 8722	49
50	0.0388 6550	0.0426 3371	0.0465 5020	0.0506 0215	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	3%	3½%	4%	4½%	n
1	0.012 8372	0.014 9404	0.017 0333	0.019 1163	1
2	9.718 1784	9.721 3163	9.724 4365	9.727 5393	2
3	9.548 4267	9.552 5882	9.556 7228	9.560 8309	3
4	9.429 7960	8.434 9697	9.440 1059	9.445 2050	4
5	9.339 1623	9.345 3372	9.351 4622	9.357 5378	5
6	9.266 2258	9.273 3907	9.280 4916	9.287 5294	6
7	9.205 4922	9.213 6360	9.221 7001	9.229 6856	7
8	9.153 6819	9.162 7933	9.171 8078	9.180 7268	8
9	9.108 6795	9.118 7474	9.128 6997	9.138 5379	9
10	9.069 0407	9.080 0539	9.090 9312	9.101 6743	10
11	9.033 7351	9.045 6827	9.057 4723	9.069 1061	11
12	9.002 0022	9.014 8730	9.027 5623	9.040 0727	12
13	8.973 2643	8.987 0473	9.000 6237	9.013 9967	13
14	8.947 0725	8.961 7567	8.976 2076	8.999 3290	14
15	8.923 0708	8.938 6451	8.953 9582	8.969 0141	15
16	8.900 9723	8.917 4258	8.933 5885	8.949 4650	16
17	8.880 5422	8.897 8641	8.914 8640	8.931 5473	17
18	8.861 5864	8.879 7657	8.897 5904	8.915 0668	18
19	8.843 9418	8.862 9677	8.881 6050	8.899 8607	19
20	8.827 4707	8.847 3325	8.866 7701	8.885 7916	20
21	8.812 0558	8.832 7426	8.852 9683	8.872 7421	21
22	8.797 5957	8.819 0967	8.840 0986	8.860 6113	22
23	8.784 0028	8.806 3076	8.828 0735	8.849 3118	23
24	8.771 2009	8.794 2986	8.816 8167	8.838 7675	24
25	8.759 1227	8.783 0029	8.806 2612	8.828 9113	25
26	8.747 7092	8.772 3613	8.796 3480	8.819 6845	26
27	8.736 9079	8.762 3214	8.787 0248	8.811 0349	27
28	8.726 6721	8.752 8367	8.778 2452	8.802 9160	28
29	8.716 9600	8.743 8654	8.769 9763	8.795 2863	29
30	8.707 7342	8.735 3699	8.762 1540	8.788 1086	30
31	8.698 9607	8.727 3167	8.754 7713	8.781 3492	31
32	8.690 6091	8.719 6752	8.747 7891	8.774 9780	32
33	8.682 6515	8.712 4175	8.741 1797	8.768 9674	33
34	8.675 0627	8.705 5187	8.734 9179	8.763 2925	34
35	8.667 8198	8.698 9557	8.728 9810	8.757 9306	35
36	8.660 9015	8.692 7074	8.723 3479	8.752 8608	36
37	8.654 2885	8.686 7546	8.717 9996	8.748 0641	37
38	8.647 9630	8.681 0796	8.712 9182	8.743 5230	38
39	8.641 9087	8.675 6661	8.708 0878	8.739 2215	39
40	8.636 1104	8.670 4989	8.703 4933	8.735 1448	40
41	8.630 5541	8.665 5643	8.699 1209	8.731 2791	41
42	8.625 2267	8.660 8491	8.694 9577	8.727 6118	42
43	8.620 1164	8.656 3415	8.690 9921	8.724 1312	43
44	8.615 2117	8.652 0304	8.687 2127	8.720 8264	44
45	8.610 5023	8.647 9053	8.683 6094	8.717 6873	45
46	8.605 9784	8.643 9566	8.680 1727	8.714 7045	46
47	8 601 6310	8.640 1752	8.676 8936	8.711 8691	47
48	8.597 4513	8.636 5527	8.673 7639	8.709 1731	48
49	8.593 4316	8.633 0810	8.670 7756	8.706 6087	49
50	8.589 5642	8.629 7531	8.667 9216	8.704 1689	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	3%	3½%	4%	4½%	n
51	0.0385 3382	0.0423 2156	0.0462 5885	0.0503 3232	51
52	0.0382 1718	0.0420 2429	0.0459 8212	0.0500 7679	52
53	0.0379 1471	0.0417 4100	0.0457 1915	0.0498 3469	53
54	0.0376 2558	0.0414 7090	0.0454 6910	0.0496 0519	54
55	0.0373 4907	0.0412 1323	0.0452 3124	0.0493 8754	55
56	0.0370 8447	0.0409 6730	0.0450 0487	0.0491 8105	56
57	0.0368 3114	0.0407 3245	0.0447 8932	0.0489 8506	57
58	0.0365 8848	0.0405 0810	0.0445 8401	0.0487 9897	58
59	0.0363 5593	0.0402 9366	0.0443 8836	0.0486 2221	59
60	0.0361 3296	0.0400 8862	0.0442 0185	0.0484 5426	60
61	0.0359 1908	0.0398 9249	0.0440 2398	0.0482 9462	61
62	0.0357 1385	0.0397 0480	0.0438 5430	0.0481 4284	62
63	0.0355 1682	0.0395 2513	0.0436 9237	0.0479 9848	63
64	0.0353 2760	0.0393 5308	0.0435 3780	0.0478 6115	64
65	0.0351 4581	0.0391 8826	0.0433 9019	0.0477 3047	65
66	0.0349 7110	0.0390 3031	0.0432 4921	0.0476 0608	66
67	0.0348 0313	0.0388 7892	0.0431 1451	0.0474 8765	67
68	0.0346 4159	0.0387 3375	0.0429 8578	0.0473 7487	68
69	0.0344 8618	0.0385 9453	0.0428 6272	0.0472 6745	69
70	0.0343 3663	0.0384 6095	0.0427 4506	0.0471 6511	70
71	0.0341 9266	0.0383 3277	0.0426 3253	0.0470 6759	71
72	0.0340 5404	0.0382 0973	0.0425 2489	0.0469 7465	72
73	0.0339 2053	0.0380 9160	0.0424 2190	0.0468 8606	73
74	0.0337 9191	0.0379 7816	0.0423 2334	0.0468 0159	74
75	0.0336 6796	0.0378 6919	0.0422 2900	0.0467 2104	75
76	0.0335 4849	0.0377 6450	0.0421 3869	0.0466 4422	76
77	0.0334 3331	0.0376 6390	0.0420 5221	0.0465 7094	77
78	0.0333 2224	0.0375 6721	0.0419 6939	0.0465 0104	78
79	0.0332 1510	0.0374 7426	0.0418 9007	0.0464 3434	79
80	0.0331 1175	0.0373 8489	0.0418 1408	0.0463 7069	80
81	0.0330 1201	0.0372 9894	0.0417 4127	0.0463 0995	81
82	0.0329 1576	0.0372 1628	0.0416 7150	0.0462 5197	82
83	0.0328 2284	0.0371 3676	0.0416 0463	0.0461 9663	83
84	0.0327 3313	0.0370 6025	0.0415 4054	0.0461 4379	84
85	0.0326 4650	0.0369 8662	0.0414 7909	0.0460 9334	85
86	0.0325 6284	0.0369 1576	0.0414 2018	0.0460 4516	86
87	0.0324 8202	0.0368 4756	0.0413 6370	0.0459 9915	87
88	0.0324 0393	0.0367 8190	0.0413 0953	0.0459 5522	88
89	0.0323 2848	0.0367 1868	0.0412 5758	0.0459 1325	89
90	0.0322 5556	0.0366 5781	0.0412 0775	0.0458 7316	90
91	0.0321 8508	0.0365 9919	0.0411 5995	0.0458 3486	91
92	0.0321 1694	0.0365 4273	0.0411 1410	0.0457 9827	92
93	0.0320 5107	0.0364 8834	0.0410 7010	0.0457 6331	93
94	0.0319 8737	0.0364 3594	0.0410 2789	0.0457 2991	94
95	0.0319 2577	0.0363 8546	0.0409 8738	0.0456 9799	95
96	0.0318 6619	0.0363 3682	0.0409 4850	0.0456 6749	96
97	0.0318 0856	0.0362 8995	0.0409 1119	0.0456 3834	97
98	0.0317 5281	0.0362 4478	0.0408 7538	0.0456 1048	98
99	0.0316 9886	0.0362 0124	0.0408 4100	0.0455 8385	99
100	0.0316 4667	0.0361 5927	0.0408 0800	0.0455 5839	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a_{\overline{n}}^{-1}$$

n	3%	3½%	4%	4½%	n
51	8.585 8421	8.626 5617	8.665 1948	8.701 8469	51
52	8.582 2587	8.623 5004	8.662 5891	8.699 6366	52
53	8.578 8077	8.620 5629	8.660 0982	8.697 5319	53
54	8.575 4833	8.617 7434	8.657 7163	8.695 5272	54
5	8.572 2798	8.615 0366	8.655 4386	8.693 6175	55
56	8.569 1922	8.612 4374	8.653 2595	8.691 7979	56
57	8.566 2152	8.609 9406	8.651 1745	8.690 0637	57
58	8.563 3444	8.607 5420	8.649 1791	8.688 4107	58
59	8.560 5753	8.605 2367	8.647 2691	8.686 8348	59
60	8.557 9037	8.603 0212	8.645 4404	8.685 3319	60
61	8.555 3254	8.600 8911	8.643 6893	8.683 8988	61
62	8.552 8367	8.598 8431	8.642 0123	8.682 5318	62
63	8.550 4342	8.596 8734	8.640 4057	8.681 2276	63
64	8.548 1142	8.594 9788	8.638 8665	8.679 9832	64
65	8.545 8736	8.593 1560	8.637 3917	8.678 7957	65
66	8.543 7093	8.591 4021	8.635 9782	8.677 6624	66
67	8.541 6183	8.589 7142	8.634 6234	8.676 5807	67
68	8.539 5977	8.588 0897	8.633 3248	8.675 5480	68
69	8.537 6451	8.586 5258	8.632 0797	8.674 5621	69
70	8.535 7576	8.585 0200	8.630 8861	8.673 6209	70
71	8.533 9330	8.583 5703	8.629 7412	8.672 7220	71
72	8.532 1687	8.582 1741	8.628 6432	8.671 8635	72
73	8.530 4627	8.580 8292	8.627 5901	8.671 0438	73
74	8.528 8127	8.579 5340	8.626 5800	8.670 2605	74
75	8.527 2168	8.578 2861	8.625 6108	8.669 5126	75
76	8.525 6730	8.577 0839	8.624 6811	8.668 7980	76
77	8.524 1794	8.575 9254	8.623 7889	8.668 1150	77
78	8.522 7342	8.574 8090	8.622 9327	8.667 4627	78
79	8.521 3356	8.573 7332	8.622 1111	8.666 8393	79
80	8.519 9822	8.572 6960	8.621 3226	8.666 2437	80
81	8.518 6721	8.571 6966	8.620 5656	8.665 6744	81
82	8.517 4038	8.570 7330	8.619 8391	8.665 1303	82
83	8.516 1762	8.569 8040	8.619 1417	8.664 6103	83
84	8.514 9876	8.568 9084	8.618 4722	8.664 1132	84
85	8.513 8367	8.568 0448	8.617 8293	8.663 6381	85
86	8.512 7222	8.567 2119	8.617 2121	8.663 1840	86
87	8.511 6429	8.566 4088	8.616 6194	8.662 7499	87
88	8.510 5978	8.565 6343	8.616 0503	8.662 3348	88
89	8.509 5853	8.564 8872	8.615 5038	8.661 9380	89
90	8.508 6046	8.564 1665	8.614 9789	8.661 5587	90
91	8.507 6546	8.563 4715	8.614 4749	8.661 1959	91
92	8.506 7343	8.562 8009	8.613 9908	8.660 8490	92
93	8.505 8425	8.562 1540	8.613 5259	8.660 5176	93
94	8.504 9785	8.561 5300	8.613 0791	8.660 2003	94
95	8.504 1414	8.560 9280	8.612 6501	8.659 8971	95
96	8.503 3302	8.560 3471	8.612 2381	8.659 6071	96
97	8.502 5440	8.559 7864	8.611 8422	8.659 3298	97
98	8.501 7822	8.559 2455	8.611 4618	8.659 0646	98
99	8.501 0437	8.558 7234	8.611 0964	8.658 8110	99
100	8.500 3280	8.558 2196	8.610 7453	8.658 5684	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|} = i/(1-v^n)$$

n	5%	5½%	6%	6½%	n
1	1.0500 0000	1.0550 0000	1.0600 0000	1.0650 0000	1
2	0.5378 0488	0.5416 1800	0.5454 3689	0.5492 6150	2
3	0.3672 0856	0.3706 5407	0.3741 0981	0.3775 7570	3
4	0.2820 1183	0.2852 9449	0.2885 9149	0.2919 0274	4
5	0.2309 7480	0.2341 7644	0.2373 9640	0.2406 3454	5
6	0.1970 1747	0.2001 7895	0.2033 6263	0.2065 6831	6
7	0.1728 1982	0.1759 6442	0.1791 3502	0.1823 3137	7
8	0.1547 2181	0.1578 6401	0.1610 3594	0.1642 3730	8
9	0.1406 9008	0.1438 3946	0.1470 2224	0.1502 3803	9
10	0.1295 0458	0.1326 6777	0.1358 6796	0.1391 0469	10
11	0.1203 8889	0.1235 7065	0.1267 9294	0.1300 5521	11
12	0.1128 2541	0.1160 2923	0.1192 7703	0.1225 6817	12
13	0.1064 5577	0.1096 8426	0.1129 6011	0.1162 8256	13
14	0.1010 2397	0.1042 7912	0.1075 8491	0.1109 4048	14
15	0.0963 4229	0.0996 2560	0.1029 6276	0.1063 5278	15
16	0.0922 6991	0.0955 8254	0.0989 5214	0.1023 7757	16
17	0.0886 9914	0.0920 4197	0.0954 4480	0.0989 0633	17
18	0.0855 4622	0.0889 1992	0.0923 5654	0.0958 5461	18
19	0.0827 4501	0.0861 5006	0.0896 2086	0.0931 5575	19
20	0.0802 4259	0.0836 7933	0.0871 8456	0.0907 5640	20
21	0.0779 9611	0.0814 6478	0.0850 0455	0.0886 1333	21
22	0.0759 7051	0.0794 7123	0.0830 4557	0.0866 9120	22
23	0.0741 3682	0.0776 6965	0.0812 7848	0.0849 6078	23
24	0.0724 7090	0.0760 3580	0.0796 7900	0.0833 9770	24
25	0.0709 5246	0.0745 4935	0.0782 2672	0.0819 8148	25
26	0.0695 6432	0.0731 9307	0.0769 0435	0.0806 9480	26
27	0.0682 9186	0.0719 5228	0.0756 9717	0.0795 2288	27
28	0.0671 2253	0.0708 1440	0.0745 9255	0.0784 5305	28
29	0.0660 4551	0.0697 6857	0.0735 7961	0.0774 7440	29
30	0.0650 5144	0.0688 0539	0.0726 4891	0.0765 7744	30
31	0.0641 3212	0.0679 1665	0.0717 9222	0.0757 5393	31
32	0.0632 8042	0.0670 9519	0.0710 0234	0.0749 9665	32
33	0.0624 9004	0.0663 3469	0.0702 7293	0.0742 9924	33
34	0.0617 5545	0.0656 2958	0.0695 9843	0.0736 5610	34
35	0.0610 7171	0.0649 7493	0.0689 7386	0.0730 6226	35
36	0.0604 3446	0.0643 6635	0.0683 9483	0.0725 1332	36
37	0.0598 3979	0.0637 9993	0.0678 5743	0.0720 0534	37
38	0.0592 8423	0.0632 7217	0.0673 5812	0.0715 3480	38
39	0.0587 6462	0.0627 7991	0.0668 9377	0.0710 9854	39
40	0.0582 7816	0.0623 2034	0.0664 6154	0.0706 9373	40
41	0.0578 2229	0.0618 9090	0.0660 5886	0.0703 1779	41
42	0.0573 9471	0.0614 8927	0.0656 8342	0.0699 6842	42
43	0.0569 9333	0.0611 1337	0.0653 3312	0.0696 4352	43
44	0.0566 1625	0.0607 6128	0.0650 0606	0.0693 4119	44
45	0.0562 6173	0.0604 3127	0.0647 0050	0.0690 5968	45
46	0.0559 2820	0.0601 2175	0.0644 1485	0.0687 9743	46
47	0.0556 1421	0.0598 3129	0.0641 4768	0.0685 5300	47
48	0.0553 1843	0.0595 5854	0.0638 9766	0.0683 2506	48
49	0.0550 3965	0.0593 0230	0.0636 6356	0.0681 1240	49
50	0.0547 7674	0.0590 6145	0.0634 4429	0.0679 1393	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	5%	5½%	6%	6½%	n
1	0.021 1892	0.023 2524	0.025 3058	0.027 3496	1
2	9.730 6248	9.733 6930	9.736 7445	9.739 7792	2
3	9.564 9128	9.568 9688	9.572 9991	9.577 0040	3
4	9.450 2673	9.455 2934	9.460 2835	9.465 2382	4
5	9.363 5646	9.369 5432	9.375 4741	9.381 3580	5
6	9.294 5048	9.301 4184	9.308 2712	9.315 0637	6
7	9.237 5935	9.245 4248	9.253 1805	9.260 8614	7
8	9.189 5515	9.198 2831	9.206 9228	9.215 4718	8
9	9.148 2635	9.157 8780	9.167 3830	9.176 7799	9
10	9.112 2851	9.122 7654	9.133 1171	9.143 3418	10
11	9.080 5864	9.091 9153	9.103 0951	9.114 1277	11
12	9.052 4070	9.064 5674	9.076 5568	9.088 3777	12
13	9.027 1692	9.040 1443	9.052 9251	9.065 5146	13
14	9.004 4244	9.018 1973	9.031 7514	9.045 0901	14
15	8.983 8169	8.998 3709	9.012 6802	9.026 7488	15
16	8.965 0601	8.980 3786	8.995 4252	9.010 2048	16
17	8.947 9194	8.963 9858	8.979 7523	8.995 2241	17
18	8.932 2008	8.948 9990	8.965 4677	8.981 6130	18
19	8.917 7418	8.935 2555	8.952 4090	8.969 2097	19
20	8.904 4050	8.922 6182	8.940 4396	8.957 8772	20
21	8.892 0729	8.910 9699	8.929 4422	8 947 4990	21
22	8.880 6450	8.900 2099	8.919 3164	8 937 9750	22
23	8.870 0339	8.890 2514	8.909 9756	8.929 2185	23
24	8.860 1637	8.881 0181	8.901 3439	8.921 1541	24
25	8.850 9674	8.872 4439	8.893 3551	8.913 7158	25
26	8.842 3865	8.864 4700	8.885 9508	8.906 8456	26
27	8.834 3689	8.857 0446	8.879 0797	8.900 4921	27
28	8.826 8683	8.850 1215	8.872 6955	8.894 6098	28
29	8.819 8433	8.843 6598	8.866 7575	8.889 1582	29
30	8.813 2569	8.837 6224	8.861 2291	8.884 1009	30
31	8.807 0756	8.831 9763	8.856 0774	8.879 4052	31
32	8.801 2694	8.826 6914	8.851 2727	8.875 0418	32
33	8.795 8108	8.821 7407	8.846 7881	8.870 9843	33
34	8.790 6753	8.817 0995	8.842 5993	8.867 2087	34
35	8.785 8401	8.812 7458	8.838 6845	8.863 6931	35
36	8.781 2846	8.808 6589	8.835 0233	8.860 4178	36
37	8.776 9901	8.804 8202	8.831 5974	8.857 3647	37
38	8.772 9391	8.801 2127	8.828 3899	8.854 5174	38
39	8.769 1160	8.797 8207	8.825 3857	8.851 8607	39
40	8.765 5058	8.794 6298	8.822 5703	8.849 3808	40
41	8.762 0953	8.791 6268	8.819 9310	8.847 0652	41
42	8.758 8719	8.788 7993	8.817 4557	8.844 9021	42
43	8.755 8241	8.786 1362	8.815 1334	8.842 8807	43
44	8.752 9411	8.783 6268	8.812 9538	8.840 9913	44
45	8.750 2131	8.781 2617	8.810 9076	8.839 2245	45
46	8.747 6309	8.779 0316	8.808 9860	8.837 5723	46
47	8.745 1858	8.776 9283	8.807 1809	8.836 0264	47
48	8.742 8698	8.774 9440	8.805 4850	8.834 5800	48
49	8.740 6756	8.773 0716	8.803 8910	8.833 2262	49
50	8.738 5963	8.771 3041	8.802 3925	8.831 9588	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	5%	5½%	6%	6½%	n
51	0.0545 2867	0.0588 3495	0.0632 3880	0.0677 2861	51
52	0.0542 9450	0.0586 2186	0.0630 4617	0.0675 5553	52
53	0.0540 7334	0.0584 2130	0.0628 6551	0.0673 9382	53
54	0.0538 6438	0.0582 3245	0.0626 9602	0.0672 4267	54
55	0.0536 6686	0.0580 5458	0.0625 3696	0.0671 0137	55
56	0.0534 8010	0.0578 8698	0.0623 8765	0.0669 6923	56
57	0.0533 0343	0.0577 2900	0.0622 4744	0.0668 4563	57
58	0.0531 3626	0.0575 8006	0.0621 1574	0.0667 2999	58
59	0.0529 7802	0.0574 3959	0.0619 9200	0.0666 2177	59
60	0.0528 2818	0.0573 0707	0.0618 7572	0.0665 2047	60
61	0.0526 8627	0.0571 8202	0.0617 6642	0.0664 2564	61
62	0.0525 5183	0.0570 6400	0.0616 6366	0.0663 3684	62
63	0.0524 2442	0.0569 5258	0.0615 6704	0.0662 5367	63
64	0.0523 0365	0.0568 4737	0.0614 7615	0.0661 7577	64
65	0.0521 8915	0.0567 4800	0.0613 9066	0.0661 0280	65
66	0.0520 8057	0.0566 5413	0.0613 1022	0.0660 3442	66
67	0.0519 7757	0.0565 6544	0.0612 3454	0.0659 7034	67
68	0.0518 7986	0.0564 8163	0.0611 6330	0.0659 1029	68
69	0.0517 8715	0.0564 0242	0.0610 9625	0.0658 5400	69
70	0.0516 9915	0.0563 2754	0.0610 3313	0.0658 0124	70
71	0.0516 1563	0.0562 5675	0.0609 7370	0.0657 5177	71
72	0.0515 3633	0.0561 8982	0.0609 1774	0.0657 0539	72
73	0.0514 6103	0.0561 2652	0.0608 6505	0.0656 6190	73
74	0.0513 8953	0.0560 6665	0.0608 1542	0.0656 2112	74
75	0.0513 2161	0.0560 1002	0.0607 6867	0.0655 8287	75
76	0.0512 5709	0.0559 5645	0.0607 2463	0.0655 4699	76
77	0.0511 9580	0.0559 0577	0.0606 8315	0.0655 1335	77
78	0.0511 3756	0.0558 5781	0.0606 4407	0.0654 8178	78
79	0.0510 8222	0.0558 1243	0.0606 0724	0.0654 5217	79
80	0.0510 2962	0.0557 6948	0.0605 7254	0.0654 2440	80
81	0.0509 7963	0.0557 2884	0.0605 3984	0.0653 9834	81
82	0.0509 3211	0.0556 9036	0.0605 0903	0.0653 7388	82
83	0.0508 8694	0.0556 5395	0.0604 7998	0.0653 5094	83
84	0.0508 4399	0.0556 1947	0.0604 5261	0.0653 2941	84
85	0.0508 0316	0.0555 8683	0.0604 2681	0.0653 0921	85
86	0.0507 6433	0.0555 5593	0.0604 0249	0.0652 9026	86
87	0.0507 2740	0.0555 2667	0.0603 7956	0.0652 7247	87
88	0.0506 9228	0.0554 9896	0.0603 5795	0.0652 5577	88
89	0.0506 5888	0.0554 7273	0.0603 3757	0.0652 4010	89
90	0.0506 2711	0.0554 4788	0.0603 1836	0.0652 2540	90
91	0.0505 9689	0.0554 2435	0.0603 0025	0.0652 1160	91
92	0.0505 6815	0.0554 0207	0.0602 8318	0.0651 9864	92
93	0.0505 4080	0.0553 8096	0.0602 6708	0.0651 8649	93
94	0.0505 1478	0.0553 6097	0.0602 5190	0.0651 7507	94
95	0.0504 9003	0.0553 4204	0.0602 3758	0.0651 6436	95
96	0.0504 6648	0.0553 2410	0.0602 2408	0.0651 5431	96
97	0.0504 4407	0.0553 0711	0.0602 1135	0.0651 4487	97
98	0.0504 2274	0.0552 9101	0.0601 9935	0.0651 3601	98
99	0.0504 0245	0.0552 7577	0.0601 8803	0.0651 2769	99
100	0.0503 8314	0.0552 6132	0.0601 7736	0.0651 1988	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	5%	5½%	6%	6½%	n
51	8.736 6249	8.769 6354	8.800 9836	8.830 7722	51
52	8.734 7559	8.768 0597	8.799 6588	8.829 6609	52
53	8.732 9832	8.766 5711	8.798 4126	8.828 6200	53
54	8.731 3016	8.765 1652	8.797 2399	8.827 6450	54
55	8.729 7063	8.763 8366	8.796 1369	8.826 7314	55
56	8.728 1923	8.762 5809	8.795 0988	8.825 8753	56
57	8.726 7552	9.761 3940	8.794 1215	8.825 0730	57
58	8.725 3911	8.760 2722	8.793 2017	8.824 3211	58
59	8.724 0958	8.759 2112	8.792 3358	8.823 6162	59
60	8.722 8657	8.758 2082	8.791 5203	8.822 9553	60
61	8.721 6974	8.757 2596	8.790 7524	8.822 3357	61
62	8.720 5879	8.756 3624	8.790 0293	8.821 7548	62
63	8.719 5337	8.755 5134	8.789 3483	8.821 2100	63
64	8.718 5321	8.754 7104	8.788 7067	8.820 6991	64
65	8.717 5803	8.753 9505	8.788 1024	8.820 2199	65
66	8.716 6758	8.753 2317	8.787 5330	8.819 7704	66
67	8.715 8160	8.752 5512	8.786 9964	8.819 3487	67
68	8.714 9989	8.751 9073	8.786 4910	8.818 9532	68
69	8.714 2220	8.751 2977	8.786 0145	8.818 5822	69
70	8.713 4834	8.750 7209	8.785 5658	8.818 2340	70
71	8.712 7812	8.750 1748	8.785 1427	8.817 9074	71
72	8.712 1135	8.749 6576	8.784 7438	8.817 6010	72
73	8.711 4785	8.749 1681	8.784 3680	8.817 3134	73
74	8.710 8746	8.748 7047	8.784 0137	8.817 0436	74
75	8.710 3003	8.748 2658	8.783 6797	8.816 7904	75
76	8.709 7539	8.747 8502	8.783 3650	8.816 5528	76
77	8.709 2344	8.747 4567	8.783 0681	8.816 3297	77
78	8.708 7400	8.747 0839	8.782 7883	8.816 1205	78
79	9.708 2699	8.746 7309	8.782 5246	8.815 9241	79
80	8.707 8224	8.746 3968	8.782 2758	8.815 7398	80
81	8.707 3967	8.746 0800	8.782 0412	8.815 5667	81
82	8.706 9917	8.745 7800	8.781 8203	8.815 4043	82
83	8.706 6063	8.745 4960	8.781 6116	8.815 2518	83
84	8.706 2396	8.745 2268	8.781 4152	8.815 1087	84
85	8.705 8906	8.744 9720	8.781 2296	8.814 9745	85
86	8.705 5587	8.744 7304	8.781 0549	8.814 8483	86
87	8.705 2427	8.744 5016	8.780 8899	8.814 7300	87
88	8.704 9419	8.744 2848	8.780 7344	8.814 6190	88
89	8.704 6556	8.744 0794	8.780 5879	8.814 5146	89
90	8.704 3832	8.743 8851	8.780 4496	8.814 4167	90
91	8.704 1239	8.743 7007	8.780 3191	8.814 3248	91
92	8.703 8772	8.743 5260	8.780 1961	8.814 2386	92
93	8.703 6421	8.743 3605	8.780 0801	8.814 1575	93
94	8.703 4185	8.743 2037	8.779 9707	8.814 0815	94
95	8.703 2057	8.743 0551	8.779 8677	8.814 0101	95
96	8.703 0031	8.742 9143	8.779 7703	8.813 9431	96
97	8.702 8101	8.742 7810	8.779 6784	8.813 8802	97
98	8.702 6265	8.742 6546	8.779 5918	8.813 8211	98
99	8.702 4516	8.742 5348	8.779 5102	8.813 7657	99
100	8.702 2852	8.742 4213	8.779 4330	8.813 7136	100

Annuity Whose Present Value at Compound Interest is 1

$$a_{\overline{n}|}^{-1} = i/(1-v^n)$$

n	7%	7½%	8%	8½%	n
1	1.0700 0000	1.0750 0000	1.0800 0000	1.0850 0000	1
2	0.5530 9179	0.5569 2771	0.5607 6923	0.5646 1631	2
3	0.3810 5166	0.3845 3763	0.3880 3351	0.3915 3925	3
4	0.2952 2812	0.2985 6751	0.3019 2080	0.3052 8789	4
5	0.2438 9069	0.2471 6472	0.2504 5645	0.2537 6575	5
6	0.2097 9580	0.2130 4489	0.2163 1539	0.2196 0708	6
7	0.1855 5322	0.1888 0032	0.1920 7240	0.1953 6922	7
8	0.1674 6776	0.1707 2702	0.1740 1476	0.1773 3065	8
9	0.1534 8647	0.1567 6716	0.1600 7971	0.1634 2372	9
10	0.1423 7750	0.1456 8593	0.1490 2949	0.1524 0771	10
11	0.1333 5690	0.1366 9747	0.1400 7634	0.1434 9293	11
12	0.1259 0199	0.1292 7783	0.1326 9502	0.1361 5286	12
13	0.1196 5085	0.1230 6420	0.1265 2181	0.1300 2287	13
14	0.1143 4494	0.1177 9737	0.1212 9685	0.1248 4244	14
15	0.1097 9462	0.1132 8724	0.1168 2954	0.1204 2046	15
16	0.1058 5765	0.1093 9116	0.1129 7687	0.1166 1354	16
17	0.1024 2519	0.1060 0003	0.1096 2943	0.1133 1198	17
18	0.0994 1260	0.1030 2896	0.1067 0210	0.1104 3041	18
19	0.0967 5301	0.1004 1090	0.1041 2763	0.1079 0140	19
20	0.0943 9293	0.0980 9219	0.1018 5221	0.1056 7097	20
21	0.0922 8900	0.0960 2937	0.0998 3225	0.1036 9541	21
22	0.0904 0577	0.0941 8687	0.0980 3207	0.1019 3892	22
23	0.0887 1393	0.0925 3528	0.0964 2217	0.1003 7193	23
24	0.0871 8902	0.0910 5008	0.0949 7796	0.0989 6975	24
25	0.0858 1052	0.0897 1067	0.0936 7878	0.0977 1168	25
26	0.0845 6103	0.0884 9961	0.0925 0713	0.0965 8016	26
27	0.0834 2573	0.0874 0204	0.0914 4809	0.0955 6025	27
28	0.0823 9193	0.0864 0520	0.0904 8891	0.0946 3914	28
29	0.0814 4865	0.0854 9811	0.0896 1854	0.0938 0577	29
30	0.0805 8640	0.0846 7124	0.0888 2743	0.0930 5058	30
31	0.0797 9691	0.0839 1628	0.0881 0728	0.0923 6524	31
32	0.0790 7292	0.0832 2599	0.0874 5081	0.0917 4247	32
33	0.0784 0807	0.0825 9397	0.0868 5163	0.0911 7588	33
34	0.0777 9674	0.0820 1461	0.0863 0411	0.0906 5984	34
35	0.0772 3396	0.0814 8291	0.0858 0326	0.0901 8937	35
36	0.0767 1531	0.0809 9447	0.0853 4467	0.0897 6006	36
37	0.0762 3685	0.0805 4533	0.0849 2440	0.0893 6799	37
38	0.0757 9505	0.0801 3197	0.0845 3894	0.0890 0966	38
39	0.0753 8676	0.0797 5124	0.0841 8513	0.0886 8193	39
40	0.0750 0914	0.0794 0031	0.0838 6016	0.0883 8201	40
41	0.0746 5962	0.0790 7663	0.0835 6149	0.0881 0737	41
42	0.0743 3591	0.0787 7789	0.0832 8684	0.0878 5576	42
43	0.0740 3590	0.0785 0201	0.0830 3414	0.0876 2512	43
44	0.0737 5769	0.0782 4710	0.0828 0152	0 0874 1363	44
45	0.0734 9957	0.0780 1146	0.0825 8728	0.0872 1961	45
46	0.0732 5996	0.0777 9353	0.0823 8991	0.0870 4154	46
47	0.0730 3744	0.0775 9190	0.0822 0799	0.0868 7807	47
48	0.0728 3070	0.0774 0527	0.0820 4027	0.0867 2795	48
49	0.0726 3853	0.0772 3247	0.0818 8557	0.0865 9005	49
50	0.0724 5985	0.0770 7241	0.0817 4286	0.0864 6334	50

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	7%	7½%	8%	8½%	n
1	0.029 3838	0.031 4085	0.033 4237	0.035 4298	1
2	9.742 7972	9.745 7988	9.748 7842	9.751 7534	2
3	9.580 9839	9.584 9388	9.588 8692	9.592 7753	3
4	9.470 1577	9.475 0426	9.479 8931	9.484 7095	4
5	9.387 1953	9.392 9865	9.398 7322	9.404 4330	5
6	9.321 7968	9.328 4711	9.335 0874	9.341 6463	6
7	9.268 4685	9.276 0027	9.283 4650	9.290 8562	7
8	9.223 9312	9.232 3022	9.240 5861	9.248 7838	8
9	9.186 0701	9.195 2551	9.204 3362	9.213 3151	9
10	9.153 4413	9.163 4176	9.173 2722	9.183 0069	10
11	9.125 0155	9.135 7605	9.146 3648	9.156 8305	11
12	9.100 0326	9.111 5240	9.122 8546	9.134 0267	12
13	9.077 9158	9.090 1317	9.102 1654	9.114 0197	13
14	9.058 2170	9.071 1356	9.083 8495	9.096 3623	14
15	9.040 5810	9.054 1810	9.067 5527	9.080 7003	15
16	9.024 7223	9.038 9822	9.052 9895	9.066 7490	16
17	9.010 4068	9.025 3060	9.039 9272	9.054 2758	17
18	8.997 4414	9.012 9593	9.028 1730	9.043 0887	18
19	8.985 6645	9.001 7809	9.017 5659	9.033 0271	19
20	8.974 9394	8.991 6345	9.007 9704	9.023 9557	20
21	8.965 1500	8.982 4041	8.999 2708	9.015 7595	21
22	8.956 1961	8.973 9904	8.991 3682	9.008 3400	22
23	8.947 9918	8.966 3073	8.984 1769	9.001 6123	23
24	8.940 4618	8.959 2803	8.977 6229	8.995 5025	24
25	8.933 5406	8.952 8441	8.971 6412	8.989 9465	25
26	8.927 1702	8.946 9414	8.966 1752	8.984 8879	26
27	8.921 3000	8.941 5216	8.961 1746	8.980 2773	27
28	8.915 8846	8.936 5398	8.956 5953	8.976 0708	28
29	8.910 8839	8.931 9565	8.952 3978	8.972 2295	29
30	8.906 2618	8.927 7359	8.948 5472	8.968 7191	30
31	8.901 9860	8.923 8463	8.945 0118	8.965 5086	31
32	8.898 0278	8.920 2590	8.941 7638	8.962 5704	32
33	8.894 3607	8.916 9484	8.938 7780	8.959 8800	33
34	8.890 9614	8.913 8912	8.936 0315	8.957 4149	34
35	8.887 8083	8.911 0666	8.933 5038	8.955 1554	35
36	8.884 8821	8.908 4554	8.931 1764	8.953 0831	36
37	8.882 1650	8.906 0404	8.929 0325	8.951 1820	37
38	8.879 6408	8.903 8058	8.927 0568	8.949 4371	38
39	8.877 2951	8.901 7375	8.925 2354	8.947 8351	39
40	8.875 1142	8.899 8222	8.923 5557	8.946 3638	40
41	8.873 0858	8.898 0481	8.922 0062	8.945 0122	41
42	8.871 1986	8.896 4043	8.920 5764	8.943 7702	42
43	8.869 4423	8.894 8808	8.919 2567	8.942 6286	43
44	8.867 8073	8.893 4682	8.918 0382	8.941 5792	44
45	8.866 2848	8.892 1584	8.916 9132	8.940 6141	45
46	8.864 8667	8.890 9435	8.915 8740	8.939 7266	46
47	8.863 5455	8.889 8164	8.914 9141	8.938 9102	47
48	8.862 3145	8.888 7705	8.914 0271	8.938 1591	48
49	8.861 1670	8.887 7999	8.913 2074	8.937 4680	49
50	8.860 0974	8.886 8989	8.912 4498	8.936 8320	50

Annuity Whose Present Value at Compound Interest is 1

$$a_{n|}^{-1} = i/(1-v^n)$$

n	7%	7½%	8%	8½%	n
51	0.0722 9365	0.0769 2411	0.0816 1116	0.0863 4688	51
52	0.0721 3901	0.0767 8668	0.0814 8959	0.0862 3983	52
53	0.0719 9509	0.0766 5927	0.0813 7735	0.0861 4139	53
54	0.0718 6110	0.0765 4112	0.0812 7370	0.0860 5087	54
55	0.0717 3633	0.0764 3155	0.0811 7796	0.0859 6761	55
56	0.0716 2011	0.0763 2991	0.0810 8952	0.0858 9101	56
57	0.0715 1183	0.0762 3559	0.0810 0780	0.0858 2053	57
58	0.0714 1093	0.0761 4807	0.0809 3227	0.0857 5568	58
59	0.0713 1689	0.0760 6683	0.0808 6247	0.0856 9599	59
60	0.0712 2923	0.0759 9142	0.0807 9795	0.0856 4106	60
61	0.0711 4749	0.0759 2140	0.0807 3830	0.0855 9049	61
62	0.0710 7127	0.0758 5638	0.0806 8314	0.0855 4393	62
63	0.0710 0019	0.0757 9600	0.0806 3214	0.0855 0107	63
64	0.0709 3388	0.0757 3992	0.0805 8497	0.0854 6160	64
65	0.0708 7203	0.0756 8782	0.0805 4135	0.0854 2526	65
66	0.0708 1431	0.0756 3942	0.0805 0100	0.0853 9179	66
67	0.0707 6046	0.0755 9446	0.0804 6367	0.0853 6097	67
68	0.0707 1021	0.0755 5268	0.0804 2914	0.0853 3258	68
69	0.0706 6331	0.0755 1386	0.0803 9719	0.0853 0643	69
70	0.0706 1953	0.0754 7778	0.0803 6764	0.0852 8234	70
71	0.0705 7866	0.0754 4425	0.0803 4029	0.0852 6016	71
72	0.0705 4051	0.0754 1308	0.0803 1498	0.0852 3972	72
73	0.0705 0490	0.0753 8412	0.0802 9157	0.0852 2089	73
74	0.0704 7164	0.0753 5719	0.0802 6989	0.0852 0354	74
75	0.0704 4060	0.0753 3216	0.0802 4984	0.0851 8756	75
76	0.0704 1160	0.0753 0889	0.0802 3128	0.0851 7284	76
77	0.0703 8453	0.0752 8726	0.0802 1410	0.0851 5927	77
78	0.0703 5924	0.0752 6714	0.0801 9820	0.0851 4677	78
79	0.0703 3563	0.0752 4844	0.0801 8349	0.0851 3526	79
80	0.0703 1357	0.0752 3106	0.0801 6987	0.0851 2465	80
81	0.0702 9297	0.0752 1489	0.0801 5726	0.0851 1487	81
82	0.0702 7373	0.0751 9986	0.0801 4559	0.0851 0586	82
83	0.0702 5576	0.0751 8588	0.0801 3479	0.0850 9756	83
84	0.0702 3897	0.0751 7288	0.0801 2479	0.0850 8990	84
85	0.0702 2329	0.0751 6079	0.0801 1553	0.0850 8285	85
86	0.0702 0863	0.0751 4955	0.0801 0696	0.0850 7636	86
87	0.0701 9495	0.0751 3910	0.0800 9903	0.0850 7037	87
88	0.0701 8216	0.0751 2938	0.0800 9168	0.0850 6485	88
89	0.0701 7021	0.0751 2034	0.0800 8489	0.0850 5977	89
90	0.0701 5905	0.0751 1193	0.0800 7859	0.0850 5508	90
91	0.0701 4863	0.0751 0411	0.0800 7277	0.0850 5077	91
92	0.0701 3888	0.0750 9684	0.0800 6737	0.0850 4679	92
93	0.0701 2978	0.0750 9007	0.0800 6238	0.0850 4312	93
94	0.0701 2128	0.0750 8378	0.0800 5775	0.0850 3974	94
95	0.0701 1333	0.0750 7793	0.0800 5347	0.0850 3663	95
96	0.0701 0590	0.0750 7249	0.0800 4951	0.0850 3375	96
97	0.0700 9897	0.0750 6743	0.0800 4584	0.0850 3111	97
98	0.0700 9248	0.0750 6272	0.0800 4244	0.0850 2867	98
99	0.0700 8643	0.0750 5834	0.0800 3930	0.0850 2642	99
100	0.0700 8076	0.0750 5427	0.0800 3638	0.0850 2435	100

Logarithm of Annuity Whose Present Value at Compound Interest is 1

$$\log a^{-1}_{\overline{n}|}$$

n	7%	7½%	8%	8½%	n
51	8.859 1003	8.886 0625	8.911 7495	8.936 2466	51
52	8.858 1702	8.885 2859	8.911 1021	8.935 7079	52
53	8.857 3028	8.884 5646	8.910 5036	8.935 2119	53
54	8.856 4941	8.883 8948	8.909 9501	8.934 7553	54
55	8.855 7391	8.883 2727	8.909 4381	8.934 3349	55
56	8.855 0350	8.882 6948	8.908 9647	8.933 9477	56
57	8.854 3779	8.882 1578	8.908 5268	8.933 5912	57
58	8.853 7647	8.881 6589	8.908 1217	8.933 2629	58
59	8.853 1924	8.881 1953	8.907 7470	8.932 9605	59
60	8.852 6583	8.880 7645	8.907 4003	8.932 6820	60
61	8.852 1597	8.880 3642	8.907 0796	8.932 4255	61
62	8.851 6942	8.879 9921	8.906 7828	8.932 1892	62
63	8.851 2595	8.879 6463	8.906 5082	8.931 9715	63
64	8.850 8536	8.879 3248	8.906 2540	8.931 7710	64
65	8.850 4749	8.879 0260	8.906 0189	8.931 5863	65
66	8.850 1210	8.878 7482	8.905 8013	8.931 4161	66
67	8.849 7906	8.878 4900	8.905 5999	8.931 2593	67
68	8.849 4822	8.878 2499	8.905 4134	8.931 1148	68
69	8.849 1940	8.878 0266	8.905 2408	8.930 9818	69
70	8.848 9248	8.877 8191	8.905 0812	8.930 8591	70
71	8.848 6734	8.877 6262	8.904 9334	8.930 7461	71
72	8.848 4387	8.877 4467	8.904 7966	8.930 6420	72
73	8.848 2194	8.877 2798	8.904 6699	8.930 5461	73
74	8.848 0144	8.877 1247	8.904 5527	8.930 4577	74
75	8.847 8230	8.876 9804	8.904 4442	8.930 3762	75
76	8.847 6442	8.876 8462	8.904 3437	8.930 3011	76
77	8.847 4772	8.876 7214	8.904 2507	8.930 2319	77
78	8.847 3213	8.876 6055	8.904 1647	8.930 1682	78
79	8.847 1753	8.876 4975	8.904 0849	8.930 1094	79
80	8.847 0391	8.876 3972	8.904 0112	8.930 0553	80
81	8.846 9119	8.876 3039	8.903 9428	8.930 0054	81
82	8.846 7930	8.876 2171	8.903 8796	8.929 9594	82
83	8.846 6819	8.876 1363	8.903 8211	8.929 9171	83
84	8.846 5782	8.876 0612	8.903 7669	8.929 8780	84
85	8.846 4812	8.875 9913	8.903 7167	8.929 8421	85
86	8.846 3906	8.875 9264	8.903 6702	8.929 8089	86
87	8.846 3059	8.875 8660	8.903 6273	8.929 7784	87
88	8.846 2266	8.875 8098	8.903 5875	8.929 7502	88
89	8.846 1529	8.875 7575	8.903 5506	8.929 7242	89
90	8.846 0837	8.875 7089	8.903 5164	8.929 7003	90
91	8.846 0191	8.875 6637	8.903 4848	8.929 6782	91
92	8.845 9588	8.875 6216	8.903 4556	8.929 6579	92
93	8.845 9024	8.875 5825	8.903 4285	8.929 6392	93
94	8.845 8497	8.875 5462	8.903 4034	8.929 6219	94
95	8.845 8007	8.875 5123	8.903 3801	8.929 6060	95
96	8.845 7546	8.875 4808	8.903 3587	8.929 5914	96
97	8.845 7115	8.875 4516	8.903 3388	8.929 5779	97
98	8.845 6713	8.875 4243	8.903 3204	8.929 5654	98
99	8.845 6339	8.875 3990	8.903 3033	8.929 5540	99
100	8.845 5989	8.875 3754	8.903 2874	8.929 5434	100

$\log_{10}(1+i)$ to Twenty Places of Decimals for Multiples of 1-24, 1-20 and 1-16 of 1% from 0% to 10%

$i\%=$ 0+	$\log(1+i)$				$i\%=$ 1+	$\log(1+i)$			
1-24	.00018	09183	45421	29991	1-24	.00450	05012	26676	43842
1-20	.00021	70929	72230	20828	1-20	.00453	63178	51322	79561
1-16	.00027	13492	63374	95234	1-16	.00459	00372	50476	35861
1-12	.00036	17613	55281	22120	1-12	.00467	95548	18948	14648
1-10	.00043	40774	79318	64067	1-10	.00475	11555	91001	06348
1-8	.00054	25290	92294	07367	1-8	.00485	85346	20328	71868
3-20	.00065	09536	29595	03353	3-20	.00496	58871	06823	49258
1-6	.00072	32216	19095	88838	1-6	.00503	74406	91613	94845
3-16	.00081	35396	98220	04399	3-16	.00512	68660	97448	95604
1-5	.00086	77215	31226	91249	1-5	.00518	05125	03780	31005
5-24	.00090	38389	98244	54786	5-24	.00521	62730	93524	52631
1-4	.00108	43812	92219	91612	1-4	.00539	50318	86706	16354
7-24	.00126	48485	63423	96823	7-24	.00557	37171	31729	71556
3-10	.00130	09330	20418	11880	3-10	.00560	94453	60280	42845
5-16	.00135	50540	84966	10206	5-16	.00566	30321	92590	16385
1-3	.00144	52408	74180	91982	1-3	.00575	23288	89091	30510
7-20	.00151	73768	23504	35285	7-20	.00582	37530	29027	51439
3-8	.00162	55582	86737	35618	3-8	.00593	08672	19212	44505
2-5	.00173	37128	09000	52977	2-5	.00603	79549	97317	17092
5-12	.00180	58008	63262	36114	5-12	.00610	93321	82440	16114
7-16	.00189	58941	07419	75539	7-16	.00619	85371	70307	09332
9-20	.00194	99410	84267	96072	9-20	.00625	20513	69364	79253
11-24	.00198	59686	65847	64567	11-24	.00628	77238	39047	11431
1-2	.00216	60617	56507	67623	1-2	.00646	60422	49231	72283
13-24	.00234	60801	97179	80285	13-24	.00664	42874	73118	28420
11-20	.00238	20749	32760	74506	11-20	.00667	99277	40825	55809
9-16	.00243	60614	43104	76899	9-16	.00673	33826	58968	40271
7-12	.00252	60240	49724	38691	7-12	.00682	24595	70757	09678
3-5	.00259	79807	19908	59231	3-5	.00689	37079	47900	44989
5-8	.00270	58933	75924	92873	5-8	.00700	05586	02124	58117
13-20	.00281	37792	24673	31672	13-20	.00710	73829	74057	40716
2-3	.00288	56882	37488	19479	2-3	.00717	85846	27123	40138
11-16	.00297	55577	63293	26331	11-16	.00726	75702	80934	00683
7-10	.00302	94705	53618	00717	7-10	.00732	09529	22744	59739
17-24	.00306	54086	96044	34480	17-24	.00735	65377	05582	58564
3-4	.00324	50548	13147	05845	3-4	.00753	44178	97257	64713
19-24	.00342	46266	50273	66183	19-24	.00771	22252	61830	70432
4-5	.00346	05321	09506	48616	4-5	.00774	77780	00739	94178
13-16	.00351	43847	33036	73974	13-16	.00780	11016	52584	60402
5-6	.00360	41242	68825	25378	5-6	.00788	99598	58910	60111
17-20	.00367	59025	48784	24091	17-20	.00796	10333	36182	92458
7-8	.00378	35477	30126	83174	7-8	.00806	76217	48033	02679
9-10	.00389	11662	36910	52172	9-10	.00817	41840	06426	39490
11-12	.00396	28970	95427	41755	11-12	.00824	52109	88660	63561
15-16	.00405	25440	11196	91401	15-16	.00833	39783	84351	02205
19-20	.00410	63232	79658	08856	19-20	.00838	72301	14158	80585
23-24	.00414	21724	25900	18285	23-24	.00842	27276	40183	16627
1	.00432	13737	82642	57428	1	.00860	01717	61917	56105

$\text{Log}_{10}(1+i)$ to Twenty Places of Decimals for Multiples of 1-24, 1-20 and 1-16 of 1% from 0% to 10%

$i\%=$ 2+	$\log(1+i)$				$i\%=$ 3+	$\log(1+i)$			
1-24	.00877	75434	13108	08473	1-24	.01301	28746	49691	26335
1-20	.00881	30090	52089	31075	1-20	.01304	79961	15231	67350
1-16	.00886	62020	80743	38411	1-16	.01310	06729	88593	99947
1-12	.00895	48426	52926	44327	1-12	.01318	84535	81495	82591
1-10	.00902	57420	86910	24725	1-10	.01325	86652	83516	54691
1-8	.00913	20695	40471	90230	1-8	.01336	39615	57981	50198
3-20	.00923	83709	68466	39948	3-20	.01346	92323	09170	37022
1-6	.00930	92241	34771	40523	1-6	.01353	93986	36474	34429
3-16	.00939	77743	40380	09643	3-16	.01362	70906	06868	85260
1-5	.00945	08957	98693	92700	1-5	.01367	96972	91192	54934
5-24	.00948	63064	94779	69129	5-24	.01371	47648	74230	96155
1-4	.00966	33166	79379	41318	1-4	.01389	00603	28438	63055
7-24	.00984	02547	47381	25460	7-24	.01406	52850	56215	40802
3-10	.00987	56337	12160	15771	3-10	.01410	03215	19620	57904
5-16	.00992	86967	56016	65862	5-16	.01415	28709	15522	70531
1-3	.01001	71207	57524	04746	1-3	.01424	04391	14610	24237
7-20	.01008	78469	98524	46838	7-20	.01431	04809	63307	05692
3-8	.01019	39147	68474	88887	3-8	.01441	55225	60603	08507
2-5	.01029	99566	39811	95214	2-5	.01452	05387	57923	70038
5-12	.01037	06368	38829	25792	5-12	.01459	05354	51105	00189
7-16	.01045	89709	14574	29815	7-16	.01467	80154	55812	76254
9-20	.01051	19627	37213	80548	9-20	.01473	04950	01753	39632
11-24	.01054	72870	27111	13220	11-24	.01476	54778	42958	28391
1-2	.01072	38653	91773	10408	1-2	.01494	03497	92936	55824
13-24	.01090	03719	91196	49677	13-24	.01511	51513	57744	89866
11-20	.01093	56647	04385	09174	11-20	.01515	01032	29471	40152
9-16	.01098	85983	97168	43025	9-16	.01520	25257	63411	96127
7-12	.01107	68068	83691	48010	7-12	.01528	98825	94019	93582
3-5	.01114	73607	75797	46864	3-5	.01535	97554	09214	21795
5-8	.01125	31701	27497	18616	5-8	.01546	45435	58329	96747
13-20	.01135	89537	06610	67884	13-20	.01556	93064	29879	64966
2-3	.01142	94617	80781	82459	2-3	.01563	91343	07175	06826
11-16	.01151	75807	79136	94445	11-16	.01572	64033	68435	91515
7-10	.01157	04435	97278	19720	7-10	.01577	87563	89040	96243
17-24	.01160	56819	01642	79772	17-24	.01581	36548	96987	19941
3-4	.01178	18305	48106	81543	3-4	.01598	81053	84130	31819
19-24	.01195	79077	78130	00980	19-24	.01616	24858	24900	48711
4-5	.01199	31146	59256	92759	4-5	.01619	73535	12439	04707
13-16	.01204	59196	30068	31906	13-16	.01624	96497	95469	69676
5-6	.01213	39136	49598	04954	5-6	.01633	67962	75525	98293
17-20	.01220	42960	30742	81483	17-20	.01640	65008	71117	91860
7-8	.01230	98482	20326	25413	7-8	.01651	10367	92167	40543
9-10	.01241	53747	62432	92943	9-10	.01661	55475	57177	41240
11-12	.01248	57115	48059	70781	11-12	.01668	52074	30917	78602
15-16	.01257	36165	13829	56492	15-16	.01677	22665	63594	45883
19-20	.01262	63509	54050	17821	19-20	.01682	44936	67487	98813
23-24	.01266	15036	90473	37327	23-24	.01685	93082	47802	69602
1	.01283	72247	05172	20517	1	.01703	33392	98780	35485

$\text{Log}_{10}(1+i)$ to Twenty Places of Decimals for Multiples of 1-24, 1-20 and 1-16 of 1% from 0% to 10%

$i\%=$ 4+	$\log(1+i)$				$i\%=$ 5+	$\log(1+i)$			
1-24	.01720	73006	39741	73792	1-24	.02136	16039	64839	89178
1-20	.01724	20845	47645	73967	1-20	.02139	60567	41971	38317
1-16	.01729	42551	86413	89533	1-16	.02144	77307	83546	20816
1-12	.01738	11923	26510	68432	1-12	.02153	38405	25456	79327
1-10	.01745	07295	10536	15583	1-10	.02160	27160	28242	22008
1-8	.01755	50144	14844	00432	1-8	.02170	60088	05968	58902
3-20	.01765	92742	83764	67009	3-20	.02180	92770	22339	89915
1-6	.01772	87669	60431	58664	1-6	.02187	81088	60490	68051
3-16	.01781	56171	72080	54387	3-16	.02196	41333	19899	06303
1-5	.01786	77189	63505	66945	1-5	.02201	57398	17720	25940
5-24	.01790	24500	18896	50546	5-24	.02205	01407	43074	16091
1-4	.01807	60636	45795	12732	1-4	.02222	21045	07705	91702
7-24	.01824	96078	96617	21772	7-24	.02239	40002	08308	73085
3-10	.01828	43084	26530	86897	3-10	.02242	83711	85486	51839
5-16	.01833	63540	23321	93031	5-16	.02247	99225	51432	65012
1-3	.01842	30828	26786	04751	1-3	.02256	58278	98741	38113
7-20	.01849	24534	01472	83635	7-20	.02263	45399	44118	99262
3-8	.01859	64884	91658	49913	3-8	.02273	75876	32798	74452
2-5	.01870	04986	66243	35235	2-5	.02284	06108	76527	80342
5-12	.01876	98249	46525	17256	5-12	.02290	92794	64211	89668
7-16	.01885	64672	37466	55688	7-16	.02299	50999	33200	43393
9-20	.01890	84443	16327	38433	9-20	.02304	65840	75505	20043
11-24	.01894	30922	46610	49113	11-24	.02308	09034	46648	21313
1-2	.01911	62904	47072	80707	1-2	.02325	24596	33711	46987
13-24	.01928	94196	03004	50687	13-24	.02342	39480	78941	94386
11-20	.01932	40371	53690	66513	11-20	.02345	82376	43675	18470
9-16	.01937	59583	06469	73486	9-16	.02350	96669	15083	88553
7-12	.01946	24797	69432	11640	7-12	.02359	53688	35816	51328
3-5	.01953	16845	31255	43447	3-5	.02366	39181	97793	45411
5-8	.01963	54710	01316	40591	5-8	.02376	67219	57748	75756
13-20	.01973	92326	74705	28357	13-20	.02386	95013	88332	17246
2-3	.01980	83933	53552	49468	2-3	.02393	80074	98089	05726
11-16	.01989	48287	16939	26287	11-16	.02402	36249	41816	96540
7-10	.01994	66816	78842	33384	7-10	.02407	49873	07426	26758
17-24	.01998	12468	80969	95559	17-24	.02410	92255	10124	69373
3-4	.02015	40316	38332	91942	3-4	.02428	03760	47079	94858
19-24	.02032	67476	80340	17895	19-24	.02445	14591	62116	20293
4-5	.02036	12826	47707	84645	4-5	.02448	56676	99166	95295
13-16	.02041	30799	50160	95205	13-16	.02453	69754	53010	46156
5-6	.02049	93950	61625	29284	5-6	.02462	24749	08332	03652
17-20	.02056	84348	01362	65157	17-20	.02469	08623	55430	79319
7-8	.02067	19738	36756	68936	7-8	.02479	34233	38763	32657
9-10	.02077	54881	93557	85991	9-10	.02489	59601	07485	00279
11-12	.02084	44840	60237	76983	11-12	.02496	43045	06383	34645
15-16	.02093	07134	82123	99909	15-16	.02504	97198	83176	18402
19-20	.02098	24429	18419	24246	19-20	.02510	09610	46813	38163
23-24	.02101	69257	86507	01194	23-24	.02513	51184	64102	86421
1	.02118	92990	69938	07279	1	.02530	58652	64770	24085

$\text{Log}_{10}(1+i)$ to Twenty Places of Decimals for Multiples of 1-24, 1-20 and 1-16 of 1% from 0% to 10%

$i\%=$ 6+	$\log(1+i)$				$i\%=$ 7+	$\log(1+i)$			
1-24	.02547	65449	61171	52842	1-24	.02955	28625	54740	14576
1-20	.02551	06728	52580	64707	1-20	.02958	66716	30457	13485
1-16	.02556	18596	61751	01657	1-16	.02963	73803	09585	70648
1-12	.02564	71576	06030	56796	1-12	.02972	18816	19688	51423
1-10	.02571	53839	01340	66612	1-10	.02978	94708	31855	63384
1-8	.02581	77032	52009	08721	1-8	.02989	08349	31254	57865
3-20	.02591	99985	02017	60613	3-20	.02999	21753	77847	47541
1-6	.02598	81819	51706	79812	1-6	.03005	97225	40578	43998
3-16	.02607	33962	13120	82695	3-16	.03014	41417	22864	51607
1-5	.02612	45167	45450	26006	1-5	.03019	47853	56751	21500
5-24	.02615	85937	57661	49421	5-24	.03022	85444	98740	56056
1-4	.02632	89387	22349	14769	1-4	.03039	73008	56761	85682
7-24	.02649	92168	98184	00644	7-24	.03056	59916	65603	79181
3-10	.02653	32645	23296	75697	3-10	.03059	97219	65951	08414
5-16	.02658	43309	56644	23633	5-16	.03065	03125	04991	72196
1-3	.02666	94283	37518	69079	1-3	.03073	46169	76168	46750
7-20	.02673	74942	38747	78494	7-20	.03080	20487	72267	48912
3-8	.02683	95730	92644	29004	3-8	.03090	31768	39298	71699
2-5	.02694	16279	59029	37789	2-5	.03100	42813	63536	80208
5-12	.02700	96512	15790	45889	5-12	.03107	16713	05778	19644
7-16	.02709	46653	06676	24916	7-16	.03115	58940	31127	63137
9-20	.02714	56657	74341	37115	9-20	.03120	64198	27462	12025
11-24	.02717	96627	59125	51364	11-24	.03124	01004	26331	47692
1-2	.02734	96077	74756	52817	1-2	.03140	84642	51624	13598
13-24	.02751	94863	14729	42981	13-24	.03157	67628	32262	84912
11-20	.02755	34540	50220	77913	11-20	.03161	04147	23481	36438
9-16	.02760	44006	72591	74435	9-16	.03166	08876	71635	47850
7-12	.02768	92984	31029	09492	7-12	.03174	49962	18795	48107
3-5	.02775	72046	90553	45893	3-5	.03181	22713	30370	37051
5-8	.02785	90441	75579	44436	5-8	.03191	31644	61711	17688
13-20	.02796	08597	85447	54467	13-20	.03201	40341	59505	99600
2-3	.02802	87236	00243	53877	2-3	.03208	12676	11440	45278
11-16	.02811	35384	58808	82873	11-16	.03216	52947	92103	71063
7-10	.02816	44194	24469	89253	7-10	.03221	57032	97981	58511
17-24	.02819	83367	56823	67364	17-24	.03224	93057	18355	28701
3-4	.02836	78836	97061	47417	3-4	.03241	72788	32769	21032
19-24	.02853	73644	72637	99000	19-24	.03258	51870	04937	39637
4-5	.02857	12526	92537	61245	4-5	.03261	87608	50719	89739
13-16	.02862	20800	64812	05381	13-16	.03266	91167	53368	14488
5-6	.02870	67791	35173	78974	5-6	.03275	30302	85056	75195
17-20	.02877	45265	00088	21671	17-20	.03282	01494	38563	84985
7-8	.02887	61277	36229	05527	7-8	.03292	08087	23266	00702
9-10	.02897	77052	08778	01749	9-10	.03302	14446	82910	67304
11-12	.02904	54103	27303	67593	11-12	.03308	85223	69645	80458
15-16	.02913	00268	85175	49674	15-16	.03317	23549	11533	99666
19-20	.02918	07889	07546	80062	19-20	.03322	26466	70249	59757
23-24	.02921	46269	59837	34247	23-24	.03325	61712	74218	79036
1	.02938	37776	85209	64083	1	.03342	37554	86949	70231

$\text{Log}_{10}(1+i)$ to Twenty Places of Decimals for Multiples of 1-24, 1-20 and 1-16 of 1% from 0% to 10%

$i\%=$ 8+	*log* (1+*i*)				$i\%=$ 9+	*log* (1+*i*)			
1-24	.03359	12750	57745	46001	1-24	.03759	24809	28274	95223
1-20	.03362	47712	19260	13682	1-20	.03762	56699	14719	07829
1-16	.03367	50106	17997	78060	1-16	.03767	54486	39273	92047
1-12	.03375	87300	36455	25377	1-12	.03775	84005	03130	97228
1-10	.03382	56939	53310	34328	1-10	.03782	47505	88341	87761
1-8	.03392	61204	72870	63371	1-8	.03792	42567	13626	14073
3-20	.03402	65237	75110	27796	3-20	.03802	37400	45157	99186
1-6	.03409	34464	16725	59850	1-6	.03809	00496	08139	43309
3-16	.03417	70852	19469	08493	3-16	.03817	29223	27006	15887
1-5	.03422	72607	70550	63209	1-5	.03822	26383	68718	42764
5-24	.03426	07079	17696	68412	5-24	.03825	57792	34994	43964
1-4	.03442	79050	25403	05227	1-4	.03842	14456	42459	44998
7-24	.03459	50377	89406	57873	7-24	.03858	70488	78747	53735
3-10	.03462	84566	25320	36037	3-10	.03862	01619	49702	79227
5-16	.03467	85800	57992	22007	5-16	.03866	98268	22751	74282
1-3	.03476	21062	59211	94148	1-3	.03875	25889	92016	64286
7-20	.03482	89156	55836	77291	7-20	.03881	87873	73655	86585
3-8	.03492	91104	84266	70873	3-8	.03891	80660	30369	65943
2-5	.03502	92822	02368	11995	2-5	.03901	73219	97411	96903
5-12	.03509	60505	13961	42668	5-12	.03908	34800	41854	51576
7-16	.03517	94964	70967	74247	7-16	.03916	61634	27521	35286
9-20	.03522	95563	50212	06345	9-20	.03921	57659	03950	49564
11-24	.03526	29263	97629	70716	11-24	.03924	88310	74464	25997
1-2	.03542	97381	84548	31517	1-2	.03941	41191	76137	14316
13-24	.03559	64859	23937	25609	13-24	.03957	93443	94756	70282
11-20	.03562	98277	90438	85398	11-20	.03961	23818	96724	12031
9-16	.03567	98357	91173	85433	9-16	.03966	19334	37870	15151
7-12	.03576	31696	64959	86290	7-12	.03974	45067	78151	84604
3-5	.03582	98252	52828	14280	3-5	.03981	05541	48350	35420
5-8	.03592	97894	56722	88310	5-8	.03990	96063	74096	93259
13-20	.03602	97306	56543	34493	13-20	.04000	86360	13541	69703
2-3	.03609	63453	48276	56556	2-3	.04007	46432	30311	85783
11-16	.03617	95993	46787	68037	11-16	.04015	71381	45918	10502
7-10	.03622	95440	86294	53993	7-10	.04020	66275	74711	13222
17-24	.03626	28373	88614	74709	17-24	.04023	96173	94462	13548
3-4	.03642	92656	26674	93899	3-4	.04040	45289	14158	98021
19-24	.03659	56301	11338	41328	19-24	.04056	93778	36959	39006
4-5	.03662	88953	62161	09982	4-5	.04060	23401	14073	10369
13-16	.03667	87884	61406	42213	13-16	.04065	17788	39370	18920
5-6	.03676	19308	91430	28892	5-6	.04073	41642	10366	22877
17-20	.03682	84333	77113	14105	17-20	.04080	00612	56529	11241
7-8	.03692	81680	15719	61771	7-8	.04089	88880	81828	30790
9-10	.03702	78797	55774	95609	9-10	.04099	76924	23490	56747
11-12	.03709	43415	32919	47017	11-12	.04106	35494	98740	46877
15-16	.03717	74044	54068	39099	15-16	.04114	58568	01536	48043
19-20	.03722	72345	82274	42656	19-20	.04119	52336	96809	18525
23-24	.03726	04514	91687	02111	23-24	.04122	81485	08443	66432
1	.03742	64979	40623	63520	1	.04139	26851	58225	04075

PART II

Values of
Life Insurance Functions
and
Disability Insurance Functions

American Experience Table of Mortality

x	l_x	d_x	q_x	μ_x	$\mathring{e}_x$	L_x	T_x	x
10	100 000	749	.007 490	.007 505	48.72	99 626	4 872 204	10
11	99 251	746	.007 516	.007 531	48.08	98 928	4 772 578	11
12	98 505	743	.007 543	.007 558	47.45	98 134	4 673 650	12
13	97 762	740	.007 569	.007 585	46.80	97 392	4 575 516	13
14	97 022	737	.007 596	.007 611	46.16	96 654	4 478 124	14
15	96 285	735	.007 634	.007 644	45.50	95 918	4 381 470	15
16	95 550	732	.007 661	.007 677	44.85	95 184	4 285 552	16
17	94 818	729	.007 688	.007 703	44.19	94 454	4 190 368	17
18	94 089	727	.007 727	.007 736	43.53	93 726	4 095 914	18
19	93 362	725	.007 765	.007 776	42.87	93 000	4 002 188	19
20	92 637	723	.007 805	.007 815	42.20	92 276	3 909 188	20
21	91 914	722	.007 855	.007 860	41.53	91 553	3 816 912	21
22	91 192	721	.007 906	.007 912	40.85	90 832	3 725 359	22
23	90 471	720	.007 958	.007 964	40.17	90 111	3 634 527	23
24	89 751	719	.008 011	.008 017	39.49	89 392	3 544 416	24
25	89 032	718	.008 065	.008 069	38.81	88 673	3 455 024	25
26	88 314	718	.008 130	.008 129	38.12	87 955	3 366 351	26
27	87 596	718	.008 197	.008 197	37.43	87 237	3 278 396	27
28	86 878	718	.008 264	.008 264	36.73	86 519	3 191 159	28
29	86 160	719	.008 345	.008 338	36.03	85 800	3 104 640	29
30	85 441	720	.008 427	.008 421	35.33	85 081	3 018 840	30
31	84 721	721	.008 510	.008 503	34.63	84 360	2 933 759	31
32	84 000	723	.008 607	.008 593	33.92	83 638	2 849 399	32
33	83 277	726	.008 718	.008 699	33.21	82 914	2 765 761	33
34	82 551	729	.008 831	.008 813	32.50	82 186	2 682 847	34
35	81 822	732	.008 946	.008 926	31.78	81 456	2 600 661	35
36	81 090	737	.009 089	.009 056	31.07	80 722	2 519 205	36
37	80 353	742	.009 234	.009 201	30.35	79 982	2 438 483	37
38	79 611	749	.009 408	.009 362	29.62	79 236	2 358 501	38
39	78 862	756	.009 586	.009 540	28.90	78 484	2 279 265	39
40	78 106	765	.009 794	.009 735	28.18	77 724	2 200 781	40
41	77 341	774	.010 008	.009 947	27.45	76 954	2 123 057	41
42	76 567	785	.010 252	.010 177	26.72	76 174	2 046 103	42
43	75 782	797	.010 517	.010 433	26.00	75 384	1 969 929	43
44	74 985	812	.010 829	.010 724	25.27	74 579	1 894 545	44
45	74 173	828	.011 163	.011 050	24.54	73 759	1 819 966	45
46	73 345	848	.011 562	.011 419	23.81	72 921	1 746 207	46
47	72 497	870	.012 000	.011 842	23.08	72 062	1 673 286	47
48	71 627	896	.012 509	.012 317	22.36	71 179	1 601 224	48
49	70 731	927	.013 106	.012 876	21.63	70 268	1 530 045	49
50	69 804	962	.013 781	.013 521	20.91	69 323	1 459 777	50
51	68 842	1 001	.014 541	.014 248	20.20	68 342	1 390 454	51
52	67 841	1 044	.015 389	.015 062	19.49	67 319	1 322 112	52
53	66 797	1 091	.016 333	.015 970	18.79	66 252	1 254 793	53
54	65 706	1 143	.017 396	.016 989	18.09	65 134	1 188 541	54
55	64 563	1 199	.018 571	.018 126	17.40	63 964	1 123 407	55
56	63 364	1 260	.019 885	.019 392	16.72	62 734	1 059 443	56
57	62 104	1 325	.021 335	.020 801	16.05	61 442	996 709	57
58	60 779	1 394	.022 936	.022 356	15.39	60 082	935 267	58
59	59 385	1 468	.024 720	.024 084	14.74	58 651	875 185	59

American Experience Table of Mortality

x	l_x	d_x	q_x	μ_x	$\mathring{e}_x$	L_x	T_x	x
60	57 917	1 546	.026 693	.026 008	14.10	57 144	816 534	60
61	56 371	1 628	.028 880	.028 142	13.47	55 557	759 390	61
62	54 743	1 713	.031 292	.030 508	12.86	53 886	703 833	62
63	53 030	1 800	.033 943	.033 116	12.26	52 130	649 947	63
64	51 230	1 889	.036 873	.035 998	11.67	50 286	597 817	64
65	49 341	1 980	.040 129	.039 205	11.10	48 351	547 531	65
66	47 361	2 070	.043 707	.042 762	10.54	46 326	499 180	66
67	45 291	2 158	.047 647	.046 685	10.00	44 212	452 854	67
68	43 133	2 243	.052 002	.051 036	9.47	42 012	408 642	68
69	40 890	2 321	.056 762	.055 839	8.97	39 730	366 630	69
70	38 569	2 391	.061 993	.061 131	8.48	37 374	326 900	70
71	36 178	2 448	.067 665	.066 949	8.00	34 954	289 526	71
72	33 730	2 487	.073 733	.073 251	7.55	32 486	254 572	72
73	31 243	2 505	.080 178	.080 005	7.11	29 990	222 086	73
74	28 738	2 501	.087 028	.087 222	6.68	27 488	192 096	74
75	26 237	2 476	.094 371	.094 977	6.27	24 999	164 608	75
76	23 761	2 431	.102 311	.103 387	5.88	22 546	139 609	76
77	21 330	2 369	.111 064	.111 647	5.49	20 146	117 063	77
78	18 961	2 291	.120 827	.123 029	5.11	17 816	96 917	78
79	16 670	2 196	.131 734	.134 718	4.74	15 572	79 101	79
80	14 474	2 091	.144 466	.148 277	4.39	13 428	63 529	80
81	12 383	1 964	.158 605	.164 022	4.05	11 401	50 101	81
82	10 419	1 816	.174 297	.181 727	3.71	9 511	38 700	82
83	8 603	1 648	.191 561	.201 616	3.39	7 779	29 189	83
84	6 955	1 470	.211 359	.224 275	3.08	6 220	21 410	84
85	5 485	1 292	.235 552	.251 778	2.77	4 839	15 190	85
86	4 193	1 114	.265 681	.286 966	2.47	3 636	10 351	86
87	3 079	933	.303 020	.332 711	2.18	2 612	6 715	87
88	2 146	744	.346 692	.391 038	1.91	1 774	4 103	88
89	1 402	555	.395 863	.462 137	1.66	1 124	2 329	89
90	847	385	.454 545	.549 980	1.42	654	1 205	90
91	462	246	.532 468	.671 898	1.19	339	551	91
92	216	137	.634 259	.863 426	.98	148	212	92
93	79	58	.734 177		.80	50	64	93
94	21	18	.857 143		.64	12	14	94
95	3	3	1.000 000		.50	2	2	95

$$\mu_x = \frac{7(d_{x-1}+d_x)-(d_{x-2}+d_{x+1})}{12l_x}$$

3%

American Experience

x	D_x	N_x	C_x	M_x	x
10	74 409.391 49	1 811 345.732 02	541.093 536 2	21 651.748 81	10
11	71 701.034 12	1 736 936.340 53	523.229 390 6	21 110.655 27	11
12	69 089.425 10	1 665 235.306 40	505.946 845 6	20 587.425 88	12
13	66 571.164 90	1 596 145.881 30	489.227 176 3	20 081.479 04	13
14	64 142.971 76	1 529 574.716 40	473.052 255 2	19 592.251 86	14
15	61 801.677 61	1 465 431.744 65	458.027 700 3	19 119.199 61	15
16	59 543.601 04	1 403 630.067 04	442.872 038 4	18 661.171 91	16
17	57 366.449 36	1 344 086.466 00	428.210 669 0	18 218.299 87	17
18	55 267.371 24	1 286 720.016 64	414.597 941 5	17 790.089 20	18
19	53 243.044 04	1 231 452.645 40	401.414 921 8	17 375.491 26	19
20	51 290.860 84	1 178 209.601 37	388.648 126 5	16 974.076 33	20
21	49 408.304 15	1 126 918.740 53	376.806 385 6	16 585.428 21	21
22	47 592.420 94	1 077 510.436 38	365.324 750 6	16 208.621 82	22
23	45 840.909 17	1 029 918.015 44	354.192 290 2	15 843.297 07	23
24	44 151.544 77	984 077.106 27	343.398 404 3	15 489.104 78	24
25	42 522.179 04	939 925.561 50	332.932 814 3	15 145.706 38	25
26	40 950.736 16	897 403.382 46	323.235 742 0	14 812.773 56	26
27	39 434.760 53	856 452.646 30	313.821 108 8	14 489.537 82	27
28	37 972.354 16	817 017.885 77	304.680 688 1	14 175.716 71	28
29	36 561.682 58	779 045.531 61	296.218 480 1	13 871.036 02	29
30	35 200.560 72	742 483.849 03	287.990 744 5	13 574.817 54	30
31	33 887.310 93	707 283.288 31	279.991 001 6	13 286.826 80	31
32	32 620.310 87	673 395.977 38	272.589 976 4	13 006.835 80	32
33	31 397.614 75	640 775.666 52	265.748 597 2	12 734.245 82	33
34	30 217.372 52	609 378.051 77	259.074 497 0	12 468.497 22	34
35	29 078.180 38	579 160.679 25	252.563 735 1	12 209.422 73	35
36	27 978.679 35	550 082.498 87	246.882 424 5	11 956.858 99	36
37	26 916.883 93	522 103.819 53	241.317 805 1	11 709.976 57	37
38	25 891.579 22	495 186.935 59	236.499 406 0	11 468.658 76	38
39	24 900.956 14	469 295.356 38	231.756 971 6	11 232.159 36	39
40	23 943.928 61	444 394.400 23	227.685 420 6	11 000.402 39	40
41	23 018.847 21	420 450.471 63	223.654 439 4	10 772.716 96	41
42	22 124.740 91	397 431.624 42	220.226 204 7	10 549.062 53	42
43	21 260.104 77	375 306.883 51	217.080 310 6	10 328.836 32	43
44	20 423.798 11	354 046.778 74	214.724 162 5	10 111.756 01	44
45	19 614.206 04	333 622.980 63	212.577 845 1	9 897.031 847	45
46	18 830.340 64	314 008.774 59	211.371 432 7	9 684.454 002	46
47	18 070.512 68	295 178.433 95	210.538 596 8	9 473.082 569	47
48	17 333.648 12	277 107.921 27	210.515 461 8	9 262.543 613	48
49	16 618.269 12	259 774.273 15	211.455 263 0	9 052.028 151	49
50	15 922.786 60	243 156.004 03	213.047 583 3	8 840.572 888	50
51	15 245.968 53	227 233.217 44	215.227 813 1	8 627.525 305	51
52	14 586.683 38	211 987.248 91	217.935 304 3	8 412.297 492	52
53	13 943.893 22	197 400.565 52	221.113 172 9	8 194.362 187	53
54	13 316.647 24	183 456.672 30	224.904 876 2	7 973.249 014	54
55	12 703.878 85	170 140.025 07	229.052 269 7	7 748.344 138	55
56	12 104.810 69	157 436.146 22	233.694 632 1	7 519.291 868	56
57	11 518.548 76	145 331.335 53	238.592 531 6	7 285.597 236	57
58	10 944.464 51	133 812.786 77	243.706 165 3	7 047.004 705	58
59	10 381.987 54	122 868.322 26	249.168 176 1	6 803.298 539	59

American Experience 3%

x	D_x	N_x	C_x	M_x	x
60	9 830.431 374	112 486.334 72	254.764 424 4	6 554.130 363	60
61	9 289.343 706	102 655.903 34	260.463 258 1	6 299.365 939	61
62	8 758.317 039	93 366.559 64	266.079 984 5	6 038.902 681	62
63	8 237.140 442	84 608.242 60	271.450 173 7	5 772.822 696	63
64	7 725.773 556	76 371.102 16	276.574 637 7	5 501.372 522	64
65	7 224.176 388	68 645.328 60	281.454 605 6	5 224.797 885	65
66	6 732.308 878	61 421.152 21	285.677 666 8	4 943.343 279	66
67	6 250.544 544	54 688.843 34	289.147 978 5	4 657.665 612	67
68	5 779.341 871	48 438.298 79	291.783 526 5	4 368.517 634	68
69	5 319.227 998	42 658.956 92	293.136 171 3	4 076.734 107	69
70	4 871.162 856	37 339.728 92	293.181 540 2	3 783.597 936	70
71	4 436.102 786	32 468.566 07	291.427 972 4	3 490.416 396	71
72	4 015.467 937	28 032.463 28	287.447 398 0	3 198.988 423	72
73	3 611.065 162	24 016.995 34	281.094 988 0	2 911.541 025	73
74	3 224.793 519	20 405.930 18	272.471 974 5	2 630.446 037	74
75	2 858.395 519	17 181.136 66	261.891 596 3	2 357.974 063	75
76	2 513.249 685	14 322.741 14	249.642 576 7	2 096.082 467	76
77	2 190.405 661	11 809.491 46	236.190 015 0	1 846.439 890	77
78	1 890.417 423	9 619.085 799	221.760 574 2	1 610.249 875	78
79	1 613.596 147	7 728.668 337	206.373 704 2	1 388.489 301	79
80	1 360.224 497	6 115.072 230	190.782 630 1	1 182.115 597	80
81	1 129.823 677	4 754.847 733	173.975 886 3	991.332 966 5	81
82	922.940 305 2	3 625.024 056	156.180 278 8	817.357 080 2	82
83	739.878 269 9	2 702.083 751	137.603 769 8	661.176 801 5	83
84	580.724 647 6	1 962.205 481	119.166 239 5	523.573 031 6	84
85	444.644 097 9	1 381.480 834	101.686 005 9	404.406 792 1	85
86	330.007 293 1	936.836 735 6	85.122 945 19	302.720 786 2	86
87	235.272 485 0	606.829 442 5	69.215 899 90	217.597 841 0	87
88	159.203 988 4	371.556 957 6	53.587 060 77	148.381 941 1	88
89	100.979 918 3	212.352 969 2	38.809 921 08	94.794 880 34	89
90	59.228 834 52	111.373 050 9	26.138 055 83	55.984 959 25	90
91	31.365 667 00	52.144 216 37	16.214 756 61	29.846 903 42	91
92	14.237 347 27	20.778 549 37	8.767 154 693	13.632 146 80	92
93	5.055 512 560	6.541 202 097	3.603 536 051	4.864 992 111	93
94	1.304 728 570	1.485 689 537	1.085 765 801	1.261 456 059	94
95	.180 960 966 8	.180 960 966 8	.175 690 259 0	.175 690 259 0	95

x	$\mathbb{S}_x$	$\mathbf{R}_x$	$1/\mathbf{D}_x$	x
10	36 981 455.136 21	734 215.970 77	.000 013 439 163 79	10
11	35 170 109.404 19	712 564.221 96	.000 013 946 800 24	11
12	33 433 173.063 67	691 453.566 68	.000 014 473 995 09	12
13	31 767 937.757 26	670 866.140 80	.000 015 021 518 72	13
14	30 171 791.875 96	650 784.661 76	.000 015 590 172 59	14
15	28 642 217.159 56	631 192.409 90	.000 016 180 790 53	15
16	27 176 785.414 91	612 073.210 30	.000 016 794 415 90	16
17	25 773 155.347 86	593 412.038 39	.000 017 431 791 77	17
18	24 429 068.881 86	575 193.738 53	.000 018 093 858 59	18
19	23 142 348.865 23	557 403.649 33	.000 018 781 796 16	19
20	21 910 896.219 82	540 028.158 07	.000 019 496 650 74	20
21	20 732 686.618 46	523 054.081 74	.000 020 239 512 71	21
22	19 605 767.877 93	506 468.653 53	.000 021 011 748 93	22
23	18 528 257.441 55	490 260.031 71	.000 021 814 576 07	23
24	17 498 339.426 11	474 416.734 63	.000 022 649 264 15	24
25	16 514 262.319 84	458 927.629 85	.000 023 517 139 12	25
26	15 574 336.758 34	443 781.923 47	.000 024 419 585 43	26
27	14 676 933.375 89	428 969.149 91	.000 025 358 338 34	27
28	13 820 480.729 59	414 479.612 09	.000 026 334 948 73	28
29	13 003 462.843 82	400 303.895 38	.000 027 351 038 83	29
30	12 224 417.312 22	386 432.859 35	.000 028 408 638 37	30
31	11 481 933.463 19	372 858.041 81	.000 029 509 570 77	31
32	10 774 650.174 88	359 571.215 01	.000 030 655 747 09	32
33	10 101 254.197 49	346 564.379 21	.000 031 849 553 16	33
34	9 460 478.530 98	333 830.133 39	.000 033 093 545 75	34
35	8 851 100.479 21	321 361.636 17	.000 034 390 047 35	35
36	8 271 939.799 96	309 152.213 44	.000 035 741 501 14	36
37	7 721 857.301 09	297 195.354 45	.000 037 151 402 91	37
38	7 199 753.481 56	285 485.377 88	.000 038 622 595 84	38
39	6 704 566.545 97	274 016.719 12	.000 040 159 100 49	39
40	6 235 217.189 59	262 784.559 76	.000 041 764 240 79	40
41	5 790 876.789 36	251 784.157 37	.000 043 442 662 04	41
42	5 370 426.317 73	241 011.440 41	.000 045 198 269 40	42
43	4 972 994.693 31	230 462.377 88	.000 047 036 456 82	43
44	4 597 687.809 80	220 133.541 56	.000 048 962 489 47	44
45	4 243 641.031 06	210 021.785 55	.000 050 983 455 46	45
46	3 910 018.050 42	200 124.753 71	.000 053 105 783 86	46
47	3 596 009.275 83	190 440.299 70	.000 055 338 773 04	47
48	3 300 830.841 88	180 967.217 13	.000 057 691 259 97	48
49	3 023 722.920 61	171 704.673 52	.000 060 174 738 58	49
50	2 763 948.647 46	162 652.645 37	.000 062 803 077 45	50
51	2 520 792.643 43	153 812.072 48	.000 065 591 110 07	51
52	2 293 559.425 99	145 184.547 18	.000 068 555 680 13	52
53	2 081 572.177 08	136 772.249 69	.000 071 715 982 35	53
54	1 884 171.611 56	128 577.887 50	.000 075 093 976 88	54
55	1 700 714.939 26	120 604.638 49	.000 078 716 115 91	55
56	1 530 574.914 19	112 856.294 35	.000 082 611 783 50	56
57	1 373 138.767 98	105 337.002 48	.000 086 816 492 32	57
58	1 227 807.432 45	98 051.405 24	.000 091 370 390 86	58
59	1 093 994.645 68	91 004.400 54	.000 096 320 670 41	59

American Experience

3%

x	S_x	R_x	$1/D_x$	x
60	971 126.323 42	8 4201.102 00	.000 101 724 935 8	60
61	858 639.988 70	7 7646.971 63	.000 107 650 231 5	61
62	755 984.085 36	7 1347.605 70	.000 114 177 186 7	62
63	662 617.525 72	6 5308.703 02	.000 121 401 353 7	63
64	578 009.283 12	5 9535.880 32	.000 129 436 876 8	64
65	501 638.180 96	5 4034.507 80	.000 138 424 084 1	65
66	432 992.852 36	4 8809.709 91	.000 148 537 451 0	66
67	371 571.700 15	4 3866.366 63	.000 159 986 060 9	67
68	316 882.856 81	3 9208.701 02	.000 173 030 082 4	68
69	268 444.558 02	3 4840.183 39	.000 187 997 205 7	69
70	255 785.601 10	3 0763.449 28	.000 205 289 790 0	70
71	188 445.872 18	2 6979.851 34	.000 225 423 090 5	71
72	155 977.306 11	2 3489.434 95	.000 249 036 977 9	72
73	127 944.842 83	2 0290.446 52	.000 276 926 600 6	73
74	103 927.847 49	1 7378.905 50	.000 310 097 373 4	74
75	83 521.917 30	1 4748.459 46	.000 349 846 616 2	75
76	66 340.780 64	1 2390.485 40	.000 397 891 226 6	76
77	52 018.039 50	1 0294.402 93	.000 456 536 438 8	77
78	40 208.548 04	8447.963 041	.000 528 983 698 4	78
79	30 589.462 24	6837.713 166	.000 619 733 755 5	79
80	22 860.793 86	5449.223 865	.000 735 172 761 7	80
81	16 745.721 63	4267.108 268	.000 885 093 860 5	81
82	11 990.873 90	3275.775 302	.001 083 493 693	82
83	8 365.849 84	2458.418 222	.001 351 573 685	83
84	5 663.766 09	1797.241 420	.001 721 986 494	84
85	3 701.560 61	1273.668 389	.002 248 989 708	85
86	2 320.079 77	869.261 596 5	.003 030 236 061	86
87	1 383.243 04	566.540 810 3	.004 250 390 775	87
88	776.413 60	348.942 969 3	.006 281 249 673	88
89	404.856 64	200.561 028 2	.009 902 959 092	89
90	192.503 67	105.766 147 9	.016 883 668 37	90
91	81.130 62	49.781 188 65	.031 881 993 77	91
92	28.986 40	19.934 285 23	.070 237 803 51	92
93	8.207 85	6.302 138 429	.197 803 880 0	93
94	1.666 65	1.437 146 318	.766 442 939 2	94
95	.180 96	.175 690 259 5	5.526 053 589	95

$3\frac{1}{2}\%$ American Experience

x	D_x	N_x	C_x	M_x	x
10	70 891.881 37	1 575 535.289 60	513.024 339 6	17 612.910 22	10
11	67 981.547 03	1 504 643.408 23	493.690 340 5	17 099.885 89	11
12	65 188.963 80	1 436 661.861 20	475.077 285 6	16 606.195 54	12
13	62 509.428 80	1 371 472.897 40	457.158 524 8	16 131.118 26	13
14	59 938.424 86	1 308 963.468 60	439.908 385 9	15 673.959 73	14
15	57 471.613 21	1 249 025.043 75	423.878 845 1	15 234.051 35	15
16	55 104.249 86	1 191 553.430 53	407.873 166 5	14 810.172 50	16
17	52 832.947 96	1 136 449.180 67	392.465 270 7	14 402.299 34	17
18	50 653.861 26	1 083 616.232 71	378.153 186 9	14 009.834 07	18
19	48 562.775 57	1 032 962.371 45	364.360 266 2	13 631.680 88	19
20	46 556.195 84	984 399.595 88	351.067 762 7	13 267.320 61	20
21	44 630.763 96	937 843.400 05	338.726 755 4	12 916.252 85	21
22	42 782.784 32	893 212.636 09	326.818 941 8	12 577.526 09	22
23	41 009.204 56	850 429.851 77	315.329 136 4	12 250.707 15	23
24	39 307.090 72	809 420.647 21	304.242 685 3	11 935.378 02	24
25	37 673.622 75	770 113.556 49	293.545 447 6	11 631.135 33	25
26	36 106.090 06	732 439.933 74	283.618 790 0	11 337.589 88	26
27	34 601.492 38	696 333.843 68	274.027 816 4	11 053.971 09	27
28	33 157.365 79	661 732.351 30	264.761 175 3	10 779.943 28	28
29	31 771.341 03	628 574.985 52	256.164 177 2	10 515.182 10	29
30	30 440.783 68	596 803.644 48	247.845 850 9	10 259.017 92	30
31	29 163.539 35	566 362.860 80	239.797 179 9	10 011.172 07	31
32	27 937.535 52	537 199.321 46	232.330 782 0	9 771.374 894	32
33	26 760.457 16	509 261.785 93	225.405 613 6	9 539.044 112	33
34	25 630.108 55	482 501.328 77	218.683 132 1	9 313.638 498	34
35	24 544.706 77	456 871.220 22	212.157 548 5	9 094.955 366	35
36	23 502.534 99	432 326.513 44	206.383 296 7	8 882.797 818	36
37	22 501.379 98	408 823.978 45	200.756 961 1	8 676.414 521	37
38	21 539.706 78	386 322.598 48	195.797 965 9	8 475.657 560	38
39	20 615.512 94	364 782.891 69	190.944 786 0	8 279.859 594	39
40	19 727.425 20	344 167.378 76	186.683 998 2	8 088.914 808	40
41	18 873.630 21	324 439.953 56	182.493 024 7	7 902.230 810	41
42	18 052.898 48	305 566.323 35	178.827 627 8	7 719.737 785	42
43	17 263.586 36	287 513.424 87	175.421 544 5	7 540.910 157	43
44	16 504.372 04	270 249.838 51	172.679 303 6	7 365.488 613	44
45	15 773.573 88	253 745.466 47	170.127 392 7	7 192.809 309	45
46	15 070.040 60	237 971.892 60	168.344 686 0	7 022.681 916	46
47	14 392.081 02	222 901.851 99	166.871 612 5	6 854.337 230	47
48	13 738.520 68	208 509.770 98	166.046 937 4	6 687.465 618	48
49	13 107.886 08	194 771.250 30	165.982 478 2	6 521.418 680	49
50	12 498.641 76	181 663.364 22	166.424 489 2	6 355.436 202	50
51	11 909.557 88	169 164.722 46	167.315 389 3	6 189.011 713	51
52	11 339.503 82	157 255.164 58	168.601 704 0	6 021.696 324	52
53	10 787.440 64	145 915.660 76	170.233 826 7	5 853.094 620	53
54	10 252.414 13	135 128.220 12	172.316 550 3	5 682.860 793	54
55	9 733.397 585	124 875.805 99	174.646 382 6	5 510.544 243	55
56	9 229.602 492	115 142.408 41	177.325 260 7	5 335.897 860	56
57	8 740.165 070	105 912.805 91	180.167 142 4	5 158.572 599	57
58	8 264.436 790	97 172.640 84	183.139 547 2	4 978.405 457	58
59	7 801.823 535	88 908.204 05	186.339 561 0	4 795.265 910	59

American Experience $3\frac{1}{2}\%$

x	D_x	N_x	C_x	M_x	x
60	7 351.654 193	81 106.380 52	189.604 286 8	4 608.926 349	60
61	6 913.443 242	73 754.726 33	192.909 099 3	4 419.322 062	61
62	6 486.746 207	66 841.283 08	196.117 038 3	4 226.412 963	62
63	6 071.270 601	60 354.536 88	199.108 645 7	4 030.295 924	63
64	5 666.853 288	54 283.266 28	201.887 403 0	3 831.187 279	64
65	5 273.333 165	48 616.412 99	204.457 056 4	3 629.299 876	65
66	4 890.550 833	43 343.079 82	206.522 279 2	3 424.842 819	66
67	4 518.647 607	38 452.528 99	208.021 227 3	3 218.320 540	67
68	4 157.821 872	33 933.881 38	208.903 221 8	3 010.299 313	68
69	3 808.315 978	29 776.059 51	208.857 778 8	2 801.396 091	69
70	3 470.674 567	25 967.743 53	207.880 973 0	2 592.538 312	70
71	3 145.427 787	22 497.068 97	205.639 352 8	2 384.657 339	71
72	2 833.421 311	19 351.641 18	201.850 695 6	2 179.017 987	72
73	2 535.754 436	16 518.219 87	196.436 345 3	1 977.167 291	73
74	2 253.567 941	13 982.465 43	189.490 506 8	1 780.730 946	74
75	1 987.869 823	11 728.897 49	181.252 521 1	1 591.240 439	75
76	1 739.394 650	9 741.027 667	171.940 436 4	1 409.987 918	76
77	1 508.634 105	8 001.633 017	161.889 162 7	1 238.047 481	77
78	1 295.728 330	6 492.998 912	151.264 653 0	1 076.158 319	78
79	1 100.646 777	5 197.270 582	140.089 102 3	924.893 665 5	79
80	923.337 735 4	4 096.623 805	128.880 051 1	784.804 563 2	80
81	763.233 702 9	3 173.286 069	116.958 772 2	655.924 512 1	81
82	620.465 095 3	2 410.052 367	104.488 095 0	538.965 740 0	82
83	494.995 088 9	1 789.587 271	91.615 261 33	434.477 644 9	83
84	386.640 863 2	1 294.592 182	78.956 447 96	342.862 383 6	84
85	294.609 603 4	907.951 319 1	67.049 019 53	263.905 935 6	85
86	217.597 940 3	613.341 715 7	55.856 633 73	196.856 916 1	86
87	154.382 922 1	395.743 775 4	45.199 211 85	141.000 282 4	87
88	103.963 031 8	241.360 853 2	34.824 252 57	95.801 070 54	88
89	65.623 121 11	137.397 821 5	25.099 293 77	60.976 817 97	89
90	38.304 687 97	71.774 700 37	16.822 436 53	35.877 524 19	90
91	20.186 923 83	33.470 012 39	10.385 392 77	19.055 087 67	91
92	9.118 881 461	13.283 088 56	5.588 149 759	8.669 694 891	92
93	3.222 363 730	4.164 207 098	2.285 783 603	3.081 545 132	93
94	.827 611 304 6	.941 843 368 7	.685 392 384 8	.795 761 528 8	94
95	.114 232 064 1	.114 232 064 1	.110 369 144 1	.110 369 144 1	95

$3\frac{1}{2}\%$ American Experience

x	S_x	R_x	$1/D_x$	x
10	30 252 741.086 02	552 495.735 97	.000 014 105 987 61	10
11	28 677 205.796 41	534 882.825 75	.000 014 709 874 13	11
12	27 172 562.388 18	517 782.939 86	.000 015 340 019 87	12
13	25 735 900.526 98	501 176.744 32	.000 015 997 586 59	13
14	24 364 427.629 58	485 045.626 06	.000 016 683 788 44	14
15	23 055 464.160 97	469 371.666 32	.000 017 399 894 39	15
16	21 806 439.117 23	454 137.614 97	.000 018 147 420 62	16
17	20 614 885.686 70	439 327.442 47	.000 018 927 582 85	17
18	19 478 436.506 03	424 925.143 13	.000 019 741 831 62	18
19	18 394 820.273 32	410 915.309 07	.000 020 591 903 74	19
20	17 361 857.901 87	397 283.628 19	.000 021 479 418 19	20
21	16 377 458.305 98	384 016.307 58	.000 022 406 069 52	21
22	15 439 614.905 94	371 100.054 73	.000 023 373 887 79	22
23	14 546 402.269 85	358 522.528 63	.000 024 384 769 49	23
24	13 695 972.418 09	346 271.821 48	.000 025 440 702 47	24
25	12 886 551.770 88	334 336.443 46	.000 026 543 770 60	25
26	12 116 438.214 39	322 705.308 13	.000 027 696 158 69	26
27	11 383 998.280 65	311 367.718 25	.000 028 900 487 56	27
28	10 687 664.436 98	300 313.747 15	.000 030 159 211 27	28
29	10 025 932.085 67	289 533.803 87	.000 031 474 906 87	29
30	9 397 357.100 16	279 018.621 77	.000 032 850 665 43	30
31	8 800 553.455 68	268 759.603 85	.000 034 289 390 87	31
32	8 234 190.594 87	258 748.431 77	.000 035 794 137 94	32
33	7 696 991.273 42	248 977.056 88	.000 037 368 569 38	33
34	7 187 729.487 48	239 438.012 77	.000 039 016 611 97	34
35	6 705 228.158 71	230 124.374 27	.000 040 741 981 94	35
36	6 248 356.938 50	221 029.418 90	.000 042 548 601 69	36
37	5 816 030.425 06	212 146.621 09	.000 044 441 718 73	37
38	5 407 206.446 60	203 470.206 56	.000 046 425 887 33	38
39	5 020 883.848 12	194 994.549 00	.000 048 507 160 74	39
40	4 656 100.956 43	186 714.689 41	.000 050 690 852 45	40
41	4 311 933.577 67	178 625.774 60	.000 052 983 977 59	41
42	3 987 493.624 11	170 723.543 79	.000 055 392 767 05	42
43	3 681 927.300 76	163 003.806 01	.000 057 925 391 58	43
44	3 394 413.875 89	155 462.895 85	.000 060 590 005 94	44
45	3 124 164.037 37	148 097.407 24	.000 063 397 173 50	45
46	2 870 418.570 90	140 904.597 93	.000 066 356 821 89	46
47	2 632 446.678 31	133 881.916 01	.000 069 482 654 98	47
48	2 409 544.826 31	127 027.578 78	.000 072 788 040 52	48
49	2 201 035.055 34	120 340.113 16	.000 076 289 952 01	49
50	2 006 263.805 04	113 818.694 48	.000 080 008 693 68	50
51	1 824 600.440 82	107 463.258 28	.000 083 966 173 23	51
52	1 655 435.718 35	101 274.246 57	.000 088 187 280 14	52
53	1 498 180.553 77	95 252.550 24	.000 092 700 394 22	53
54	1 352 264.893 02	89 399.455 62	.000 097 538 002 98	54
55	1 217 136.672 89	83 716.594 83	.000 102 739 047 8	55
56	1 092 260.866 90	78 206.050 59	.000 108 347 028 0	56
57	977 118.458 49	72 870.152 73	.000 114 414 315 1	57
58	871 205.652 58	67 711.580 13	.000 121 000 381 0	58
59	774 033.011 74	62 733.174 67	.000 128 175 162 6	59

American Experience $3\frac{1}{2}\%$

x	S_x	R_x	$1/D_x$	x
60	685 124.807 68	57 937.908 76	.000 136 023 808 2	60
61	604 018.427 16	53 328.982 41	.000 144 645 723 6	61
62	530 263.700 84	48 909.660 35	.000 154 160 494 0	62
63	463 422.417 75	44 683.247 39	.000 164 710 167 9	63
64	403 067.880 87	40 652.951 46	.000 176 464 776 7	64
65	348 784.614 60	36 821.764 18	.000 189 633 381 5	65
66	300 168.201 61	33 192.464 31	.000 204 475 944 4	66
67	256 825.121 79	29 767.621 49	.000 221 305 153 0	67
68	218 372.592 80	26 549.300 95	.000 240 510 543 9	68
69	184 438.711 42	23 539.001 64	.000 262 583 253 5	69
70	154 662.651 90	20 737.605 55	.000 288 128 426 0	70
71	128 694.908 37	18 145.067 23	.000 317 921 779 7	71
72	106 197.839 41	15 760.409 89	.000 352 930 217 7	72
73	86 846.198 23	13 581.391 91	.000 394 359 952 9	73
74	70 327.978 36	11 604.224 62	.000 443 740 781 8	74
75	56 345.512 93	9 823.493 671	.000 503 051 049 1	75
76	44 616.615 44	8 232.253 232	.000 574 912 657 1	76
77	34 875.587 77	6 822.265 314	.000 662 851 248 5	77
78	26 873.954 76	5 584.217 833	.000 771 766 717 5	78
79	20 380.955 84	4 508.059 515	.000 908 556 696 8	79
80	15 183.685 26	3 583.165 849	.001 083 027 328	80
81	11 087.061 46	2 798.361 286	.001 310 214 678	81
82	7 913.775 389	2 142.436 774	.001 611 694 207	82
83	5 503.723 022	1 603.471 034	.002 020 222 064	83
84	3 714.135 751	1 168.993 389	.002 586 379 494	84
85	2 419.543 569	826.131 005 2	.003 394 322 481	85
86	1 511.592 250	562.225 069 6	.004 595 631 735	86
87	898.250 534 0	365.368 153 4	.006 477 400 391	87
88	502.506 758 5	224.367 871 1	.009 618 803 749	88
89	261.145 905 3	128.566 800 5	.015 238 531 53	89
90	123.748 083 8	67.589 982 55	.026 106 465 11	90
91	51.973 383 48	31.712 458 36	.049 537 017 55	91
92	18.503 371 09	12.657 370 70	.109 662 572 6	92
93	5.220 282 531	3.987 675 805	.310 331 199 0	93
94	1.056 075 433	.906 130 672 9	1.208 296 690	94
95	.114 232 064 1	.110 369 144 1	8.754 109 522	95

4%

American Experience

x	D_x	N_x	C_x	M_x	x
10	67 556.416 88	1 379 083.201 36	486.536 12	14 514.755 29	10
11	64 471.557 04	1 311 526.784 48	465.949 40	14 028.219 17	11
12	61 525.932 37	1 247 055.227 44	446.226 55	13 562.269 77	12
13	58 713.323 80	1 185 529.295 07	427.331 56	13 116.043 22	13
14	56 027.787 49	1 126 815.971 27	409.229 94	12 688.711 66	14
15	53 463.642 64	1 070 788.183 78	392.422 51	12 279.481 72	15
16	51 014.926 19	1 017 324.541 14	375.789 22	11 887.059 21	16
17	48 677.024 43	966 309.614 95	359.854 90	11 511.269 99	17
18	46 444.976 27	917 632.590 52	345.065 04	11 151.415 09	18
19	44 313.565 99	871 187.614 25	330.880 54	10 806.350 05	19
20	42 278.317 54	826 874.048 26	317.276 69	10 475.469 51	20
21	40 334.951 70	784 595.730 72	304.651 79	10 158.192 82	21
22	38 478.955 62	744 260.779 02	292.528 69	9 853.541 03	22
23	36 706.467 10	705 781.823 40	280.887 46	9 561.012 34	23
24	35 013.792 44	669 075.356 30	269.708 98	9 280.124 88	24
25	33 397.399 15	634 061.563 86	258.974 87	9 010.415 90	25
26	31 853.908 91	600 664.164 71	249.014 30	8 751.441 03	26
27	30 379.744 28	568 810.255 80	239.436 82	8 502.426 73	27
28	28 971.855 75	538 430.511 52	230.227 72	8 262.989 91	28
29	27 627.325 89	509 458.655 77	221.681 12	8 032.762 19	29
30	26 343.055 31	481 831.329 88	213.451 39	7 811.081 07	30
31	25 116.409 49	455 488.274 57	205.526 77	7 597.629 68	31
32	23 944.866 97	430 371.865 08	198.170 09	7 392.102 91	32
33	22 825.740 45	406 426.998 11	191.338 82	7 193.932 82	33
34	21 756.488 55	383 601.257 66	184.739 88	7 002.594 00	34
35	20 734.960 65	361 844.769 11	178.365 50	6 817.854 12	35
36	19 759.096 66	341 109.808 46	172.676 78	6 639.488 62	36
37	18 826.454 62	321 350.711 80	167.161 79	6 466.811 84	37
38	17 935.198 42	302 524.257 18	162.248 83	6 299.650 05	38
39	17 083.134 26	284 589.058 76	157.466 52	6 137.401 22	39
40	16 268.624 13	267 505.924 50	153.212 61	5 979.934 70	40
41	15 489.695 19	251 237.300 37	149.053 00	5 826.722 09	41
42	14 744.884 69	235 747.605 18	145.357 04	5 677.669 09	42
43	14 032.416 71	221 002.720 49	141.902 94	5 532.312 05	43
44	13 350.805 43	206 970.303 78	139.013 11	5 390.409 11	44
45	12 698.299 80	193 619.498 35	136.300 27	5 251.396 00	45
46	12 073.603 37	180 921.198 55	134.223 61	5 115.095 73	46
47	11 475.010 42	168 847.595 18	132.409 45	4 980.872 12	47
48	10 901.254 41	157 372.584 76	131.121 64	4 848.462 67	48
49	10 350.853 75	146 471.330 35	130.440 59	4 717.341 03	49
50	9 822.303 40	136 120.476 60	130.159 17	4 586.900 44	50
51	9 314.363 33	126 298.173 20	130.226 82	4 456.741 27	51
52	8 825.891 77	116 983.809 87	130.597 09	4 326.514 45	52
53	8 355.837 30	108 157.918 10	131.227 37	4 195.917 36	53
54	7 903.231 57	99 802.080 80	132.194 25	4 064.689 99	54
55	7 467.066 87	91 898.849 23	133.337 46	3 932.495 74	55
56	7 046.534 54	84 431.782 36	134.731 83	3 799.158 28	56
57	6 640.782 14	77 385.247 82	136.232 96	3 664.426 45	57
58	6 249.134 48	70 744.465 68	137.814 77	3 528.193 49	58
59	5 870.968 40	64 495.331 20	139.548 67	3 390.378 72	59

American Experience

4%

x	D_x	N_x	C_x	M_x	x
60	5 505.613 24	58 624.362 80	141.310 94	3 250.830 05	60
61	5 152.547 95	53 118.749 56	143.082 78	3 109.519 11	61
62	4 811.290 25	47 966.201 61	144.762 80	2 966.436 33	62
63	4 481.477 82	43 154.911 36	146.264 45	2 821.673 53	63
64	4 162.848 84	38 673.433 54	147.592 71	2 675.409 08	64
65	3 855.146 56	34 510.584 70	148.752 68	2 527.816 37	65
66	3 558.119 00	30 655.438 14	149.532 85	2 379.063 69	66
67	3 271.735 43	27 097.319 14	149.894 04	2 229.530 84	67
68	2 996.005 41	23 825.583 71	149.805 88	2 079.636 80	68
69	2 730.968 55	20 829.578 30	149.053 23	1 929.830 92	69
70	2 476.878 07	18 098.609 75	147.642 87	1 780.777 69	70
71	2 233.970 66	15 621.731 68	145.348 64	1 633.134 82	71
72	2 002.700 06	13 387.761 02	141.984 85	1 487.786 18	72
73	1 783.688 28	11 385.060 96	137.512 01	1 345.801 33	73
74	1 577.572 89	9 601.372 68	132.011 95	1 208.289 32	74
75	1 384.885 05	8 023.799 79	125.665 73	1 076.277 37	75
76	1 205.954 52	6 638.914 74	118.636 37	950.611 64	76
77	1 040.935 28	5 432.960 22	111.164 11	831.975 27	77
78	889.735 20	4 392.024 94	103.369 23	720.811 16	78
79	752.145 38	3 502.289 74	95.271 98	617.441 93	79
80	627.944 74	2 750.144 36	87.227 52	522.169 95	80
81	516.565 49	2 122.199 62	78.778 49	434.942 43	81
82	417.919 10	1 605.634 13	70.040 41	356.163 94	82
83	331.804 87	1 187.715 03	61.116 25	286.123 53	83
84	257.926 90	855.910 16	52.418 37	225.007 28	84
85	195.588 26	597.983 26	44.299 14	172.588 91	85
86	143.766 50	402.395 00	36.726 93	128.289 77	86
87	101.510 08	258.628 50	29.576 57	91.562 84	87
88	68.029 27	157.118 42	22.678 05	61.986 27	88
89	42.734 72	89.089 15	16.266 44	39.308 22	89
90	24.824 63	46.354 43	10.849 93	23.041 78	90
91	13.019 92	21.529 80	6.666 04	12.191 85	91
92	5.853 11	8.509 88	3.569 60	5.525 81	92
93	2.058 38	2.656 77	1.453 10	1.956 21	93
94	.526 12	.598 39	.433 62	.503 11	94
95	.072 27	.072 27	.069 49	.069 49	95

4%

American Experience

x	S_x	R_x	$1/D_x$	x
10	24 935 065.668 15	420 042.213 44	.000 014 802 443	10
11	23 555 982.466 79	405 527.458 15	.000 015 510 716	11
12	22 244 455.682 31	391 499.238 98	.000 016 253 309	12
13	20 997 400.454 87	377 936.969 21	.000 017 031 909	13
14	19 811 871.159 80	364 820.925 99	.000 017 848 286	14
15	18 685 055.188 53	352 132.214 33	.000 018 704 300	15
16	17 614 267.004 75	339 852.732 61	.000 019 602 106	16
17	16 596 942.463 61	327 965.673 40	.000 020 543 573	17
18	15 630 632.848 66	316 454.403 41	.000 021 530 854	18
19	14 713 000.258 14	305 302.988 32	.000 022 566 453	19
20	13 841 812.643 89	294 496.638 27	.000 023 652 786	20
21	13 014 938.595 63	284 021.168 76	.000 024 792 394	21
22	12 230 342.864 91	273 862.975 94	.000 025 988 231	22
23	11 486 082.085 89	264 009.434 91	.000 027 243 156	23
24	10 780 300.262 49	254 448.422 57	.000 028 560 174	24
25	10 111 224.906 19	245 168.297 69	.000 029 942 451	25
26	9 477 163.342 33	236 157.881 79	.000 031 393 321	26
27	8 876 499.177 62	227 406.440 76	.000 032 916 669	27
28	8 307 688.921 82	218 904.014 03	.000 034 516 256	28
29	7 769 258.410 30	210 641.024 12	.000 036 196 047	29
30	7 259 799.754 53	202 608.261 93	.000 037 960 669	30
31	6 777 968.424 65	194 797.180 86	.000 039 814 608	31
32	6 322 480.150 08	187 199.551 18	.000 041 762 604	32
33	5 892 108.285 00	179 807.448 27	.000 043 810 189	33
34	5 485 681.286 89	172 613.515 45	.000 045 963 300	34
35	5 102 080.029 23	165 610.921 45	.000 048 227 726	35
36	4 740 235.260 12	158 793.067 33	.000 050 609 601	36
37	4 399 912.451 66	152 153.578 71	.000 053 116 746	37
38	4 077 774.739 86	145 686.766 87	.000 055 756 283	38
39	3 775 250.482 68	139 387.116 82	.000 058 537 268	39
40	3 490 661.423 92	133 249.715 60	.000 061 468 013	40
41	3 223 155.499 42	127 269.780 90	.000 064 559 050	41
42	2 971 918.199 05	121 443.058 81	.000 067 820 130	42
43	2 736 170.593 87	115 765.389 72	.000 071 263 562	43
44	2 515 167.873 38	110 233.077 67	.000 074 901 848	44
45	2 308 197.569 60	104 842.668 56	.000 078 750 700	45
46	2 114 578.071 25	99 591.272 56	.000 082 825 315	46
47	1 933 656.872 70	94 476.176 83	.000 087 145 890	47
48	1 764 809.277 52	89 495.304 71	.000 091 732 562	48
49	1 607 436.692 76	84 646.842 04	.000 096 610 388	49
50	1 460 965.362 41	79 929.501 01	.000 101 809 11	50
51	1 324 844.885 81	75 342.600 57	.000 107 361 07	51
52	1 198 546.712 61	70 885.859 30	.000 113 303 00	52
53	1 081 562.902 74	66 559.344 85	.000 119 676 82	53
54	973 404.984 64	62 363.427 49	.000 126 530 52	54
55	873 602.903 84	58 298.737 50	.000 133 921 39	55
56	781 704.054 61	54 366.241 76	.000 141 913 73	56
57	697 272.272 25	50 567.083 48	.000 150 584 67	57
58	619 887.024 43	46 902.657 03	.000 160 022 16	58
59	549 142.558 75	43 374.463 54	.000 170 329 65	59

American Experience 4%

x	S_x	R_x	$1/D_x$	x
60	484 647.227 55	39 984.084 82	.000 181 632 81	60
61	426 022.864 75	36 733.254 77	.000 194 078 74	61
62	372 904.115 19	33 623.735 66	.000 207 844 46	62
63	324 937.913 58	30 657.299 33	.000 223 140 68	63
64	281 783.002 22	27 835.625 80	.000 240 220 11	64
65	243 109.568 68	25 160.216 72	.000 259 393 51	65
66	208 598.983 98	22 632.400 35	.000 281 047 37	66
67	177 943.545 84	20 253.336 66	.000 305 648 19	67
68	150 846.226 70	18 023.805 82	.000 333 777 77	68
69	127 020.642 99	15 944.169 02	.000 366 170 46	69
70	106 191.064 69	14 014.338 10	.000 403 734 04	70
71	88 092.454 94	12 233.560 41	.000 447 633 45	71
72	72 470.723 26	10 600.425 59	.000 499 325 90	72
73	59 082.962 24	9 112.639 41	.000 560 636 08	73
74	47 697.901 28	7 766.838 08	.000 633 885 13	74
75	38 096.528 60	6 558.548 76	.000 722 081 59	75
76	30 072.728 81	5 482.271 39	.000 829 218 67	76
77	23 433.814 07	4 531.659 75	.000 960 674 52	77
78	18 000.853 85	3 699.684 48	.001 123 929 9	78
79	13 608.828 91	2 978.873 32	.001 329 530 2	79
80	10 106.539 17	2 361.431 39	.001 592 496 8	80
81	7 356.394 81	1 839.261 44	.001 935 863 0	81
82	5 234.195 19	1 404.319 01	.002 392 807 6	82
83	3 628.561 06	1 048.155 07	.003 013 819 5	83
84	2 440.846 03	762.031 54	.003 877 067 5	84
85	1 584.935 87	537.024 26	.005 112 781 3	85
86	986.952 61	364.435 35	.006 955 723 3	86
87	584.557 61	236.145 58	.009 851 238 4	87
88	325.929 11	144.582 74	.014 699 555 0	88
89	168.810 69	82.596 47	.023 400 176 7	89
90	79.721 54	43.288 25	.040 282 574 2	90
91	33.367 11	20.246 47	.076 805 387 4	91
92	11.837 31	8.054 62	.170 849 343	92
93	3.327 43	2.528 81	.485 818 945	93
94	.670 66	.572 60	1.900 707 06	94
95	.072 27	.069 49	13.837 000 1	95

3½%

American Experience

x	a_x	$-\Delta a_x$	$1/a_x$	A_x	$1/A_x$	P_x	x
10	22.224 481	.091 366	.044 995	.248 447	4.024 995	.011 179	10
11	22.133 115	.094 694	.045 181	.251 537	3.975 556	.011 365	11
12	22.038 421	.098 165	.045 375	.254 739	3.925 581	.011 559	12
13	21.940 256	.101 786	.045 578	.258 059	3.875 083	.011 762	13
14	21.838 470	.105 566	.045 791	.261 501	3.824 077	.011 974	14
15	21.732 904	.109 283	.046 013	.265 071	3.772 576	.012 197	15
16	21.623 621	.113 385	.046 246	.268 766	3.720 703	.012 429	16
17	21.510 236	.117 667	.046 489	.272 601	3.668 369	.012 673	17
18	21.392 569	.121 907	.046 745	.276 580	3.615 593	.012 929	18
19	21.270 662	.126 331	.047 013	.280 702	3.562 494	.013 197	19
20	21.144 331	.130 947	.047 294	.284 974	3.509 088	.013 478	20
21	21.013 384	.135 532	.047 589	.289 402	3.455 396	.013 772	21
22	20.877 852	.140 316	.047 898	.293 986	3.401 526	.014 081	22
23	20.737 536	.145 306	.048 222	.298 731	3.347 497	.014 405	23
24	20.592 230	.150 512	.048 562	.303 644	3.293 326	.014 746	24
25	20.441 718	.155 945	.048 920	.308 734	3.239 032	.015 103	25
26	20.285 773	.161 385	.049 296	.314 008	3.184 635	.015 479	26
27	20.124 388	.167 062	.049 691	.319 465	3.130 232	.015 875	27
28	19.957 326	.172 987	.050 107	.325 115	3.075 839	.016 290	28
29	19.784 339	.178 942	.050 545	.330 964	3.021 473	.016 729	29
30	19.605 397	.185 159	.051 006	.337 016	2.967 222	.017 190	30
31	19.420 238	.191 651	.051 493	.343 277	2.913 099	.017 676	31
32	19.228 587	.198 203	.052 006	.349 758	2.859 120	.018 189	32
33	19.030 384	.204 817	.052 548	.356 460	2.805 360	.018 731	33
34	18.825 567	.211 728	.053 119	.363 387	2.751 890	.019 303	34
35	18.613 839	.218 950	.053 723	.370 547	2.698 717	.019 907	35
36	18.394 889	.226 049	.054 363	.377 951	2.645 848	.020 547	36
37	18.168 840	.233 471	.055 039	.385 595	2.593 396	.021 223	37
38	17.935 369	.240 787	.055 756	.393 490	2.541 361	.021 939	38
39	17.694 582	.248 444	.056 514	.401 632	2.489 838	.022 698	39
40	17.446 138	.256 019	.057 319	.410 034	2.438 822	.023 503	40
41	17.190 119	.263 955	.058 173	.418 692	2.388 393	.024 357	41
42	16.926 164	.271 836	.059 080	.427 618	2.338 538	.025 264	42
43	16.654 328	.279 889	.060 044	.436 810	2.289 324	.026 228	43
44	16.374 439	.287 694	.061 071	.446 275	2.240 771	.027 254	44
45	16.086 745	.295 687	.062 163	.456 004	2.192 964	.028 347	45
46	15.791 058	.303 246	.063 327	.466 003	2.145 910	.029 511	46
47	15.487 812	.310 794	.064 567	.476 258	2.099 704	.030 750	47
48	15.177 018	.317 929	.065 889	.486 768	2.054 369	.032 073	48
49	14.859 089	.324 441	.067 299	.497 519	2.009 975	.033 482	49
50	14.534 648	.330 534	.068 801	.508 490	1.966 606	.034 985	50
51	14.204 114	.336 209	.070 402	.519 668	1.924 307	.036 586	51
52	13.867 905	.341 466	.072 109	.531 037	1.883 108	.038 293	52
53	13.526 439	.346 302	.073 929	.542 584	1.843 032	.040 113	53
54	13.180 137	.350 516	.075 872	.554 295	1.804 094	.042 055	54
55	12.829 621	.354 283	.077 945	.566 148	1.766 322	.044 128	55
56	12.475 338	.357 397	.080 158	.578 129	1.729 719	.046 342	56
57	12.117 941	.360 014	.082 522	.590 215	1.694 299	.048 706	57
58	11.757 927	.362 103	.085 049	.602 389	1.660 057	.051 233	58
59	11.395 824	.363 425	.087 751	.614 634	1.626 985	.053 935	59

Life Annuity Due, Single Premium, and Annual Premium

American Experience — $3\frac{1}{2}\%$

x	a_x	$-\Delta a_x$	$1/a_x$	A_x	$1/A_x$	P_x	x
60	11.032 399	.364 093	.090 642	.626 924	1.595 090	.056 826	60
61	10.668 306	.364 021	.093 736	.639 236	1.564 367	.059 919	61
62	10.304 285	.363 279	.097 047	.651 546	1.534 811	.063 231	62
63	9.941 006	.361 922	.100 593	.663 831	1.506 408	.066 777	63
64	9.579 084	.359 789	.104 394	.676 070	1.479 138	.070 578	64
65	9.219 295	.356 678	.108 468	.688 236	1.452 989	.074 652	65
66	8.862 617	.352 874	.112 833	.700 298	1.427 964	.079 017	66
67	8.509 743	.348 287	.117 512	.712 231	1.404 039	.083 696	67
68	8.161 456	.342 761	.122 527	.724 009	1.381 199	.088 711	68
69	7.818 695	.336 650	.127 899	.735 600	1.359 435	.094 082	69
70	7.482 045	.329 737	.133 653	.746 984	1.338 717	.099 837	70
71	7.152 308	.322 529	.139 815	.758 135	1.319 027	.105 999	71
72	6.829 779	.315 655	.146 418	.769 041	1.300 320	.112 601	72
73	6.514 124	.309 534	.153 513	.779 716	1.282 519	.119 696	73
74	6.204 590	.304 356	.161 171	.790 183	1.265 530	.127 355	74
75	5.900 234	.299 994	.169 485	.800 475	1.249 258	.135 668	75
76	5.600 240	.296 348	.178 564	.810 620	1.233 624	.144 747	76
77	5.303 892	.292 812	.188 541	.820 641	1.218 559	.154 724	77
78	5.011 080	.289 065	.199 558	.830 543	1.204 031	.165 741	78
79	4.722 015	.285 259	.211 774	.840 318	1.190 025	.177 958	79
80	4.436 756	.279 070	.225 390	.849 965	1.176 519	.191 574	80
81	4.157 686	.273 419	.240 518	.859 402	1.163 600	.206 702	81
82	3.884 267	.268 903	.257 449	.868 648	1.151 214	.223 632	82
83	3.615 364	.267 057	.276 597	.877 741	1.139 288	.242 781	83
84	3.348 307	.266 427	.298 658	.886 772	1.127 685	.264 842	84
85	3.081 880	.263 187	.324 477	.895 782	1.116 343	.290 661	85
86	2.818 693	.255 302	.354 774	.904 682	1.105 361	.320 958	86
87	2.563 391	.241 788	.390 108	.913 315	1.094 912	.356 292	87
88	2.321 603	.227 862	.430 737	.921 492	1.085 197	.396 921	88
89	2.093 741	.219 957	.477 614	.929 197	1.076 198	.443 798	89
90	1.873 784	.215 779	.533 680	.936 635	1.067 651	.499 863	90
91	1.658 005	.201 347	.603 135	.943 932	1.059 398	.569 318	91
92	1.456 658	.164 375	.686 503	.950 741	1.051 811	.652 687	92
93	1.292 283	.154 257	.773 824	.956 300	1.045 697	.740 008	93
94	1.138 026	.138 026	.878 714	.961 516	1.040 024	.844 898	94
95	1.000 000	1.000 000	1.000 000	.966 184	1.035 000	.966 184	95

Life Annuity Due, Single Premium and Annual Premium

4%

American Experience

x	a_x	$-\Delta a_x$	$1/a_x$	A_x	$1/A_x$	P_x	x
10	20.413 800	.071 081	.048 986	.214 854	4.654 327	.010 525	10
11	20.342 719	.073 945	.049 158	.217 589	4.595 848	.010 696	11
12	20.268 774	.076 947	.049 337	.220 432	4.536 551	.010 875	12
13	20.191 827	.080 093	.049 525	.223 391	4.476 451	.011 063	13
14	20.111 734	.083 391	.049 722	.226 472	4.415 562	.011 261	14
15	20.028 343	.086 639	.049 929	.229 679	4.353 903	.011 468	15
16	19.941 704	.090 252	.050 146	.233 011	4.291 643	.011 685	16
17	19.851 452	.094 039	.050 374	.236 483	4.228 634	.011 913	17
18	19.757 413	.097 799	.050 614	.240 099	4.164 949	.012 152	18
19	19.659 614	.101 739	.050 866	.243 861	4.100 698	.012 404	19
20	19.557 875	.105 869	.051 130	.247 774	4.035 936	.012 669	20
21	19.452 006	.109 985	.051 409	.251 846	3.970 681	.012 947	21
22	19.342 021	.114 297	.051 701	.256 076	3.905 091	.013 239	22
23	19.227 724	.118 815	.052 008	.260 472	3.839 184	.013 547	23
24	19.108 909	.123 551	.052 332	.265 042	3.772 987	.013 870	24
25	18.985 358	.128 515	.052 672	.269 794	3.706 532	.014 211	25
26	18.856 843	.133 504	.053 031	.274 737	3.639 845	.014 570	26
27	18.723 339	.138 733	.053 409	.279 872	3.573 062	.014 948	27
28	18.584 606	.144 216	.053 808	.285 208	3.506 213	.015 346	28
29	18.440 390	.149 750	.054 229	.290 754	3.439 334	.015 767	29
30	18.290 640	.155 553	.054 673	.296 514	3.372 522	.016 211	30
31	18.135 087	.161 637	.055 142	.302 497	3.305 818	.016 680	31
32	17.973 450	.167 806	.055 638	.308 714	3.239 244	.017 176	32
33	17.805 644	.174 064	.056 162	.315 168	3.172 911	.017 700	33
34	17.631 580	.180 630	.056 716	.321 862	3.106 922	.018 255	34
35	17.450 950	.187 519	.057 303	.328 809	3.041 279	.018 842	35
36	17.263 431	.194 327	.057 926	.336 022	2.975 996	.019 464	36
37	17.069 104	.201 476	.058 585	.343 496	2.911 242	.020 124	37
38	16.867 628	.208 562	.059 285	.351 245	2.847 016	.020 824	38
39	16.659 066	.216 008	.060 027	.359 267	2.783 445	.021 566	39
40	16.443 058	.223 417	.060 816	.367 575	2.720 533	.022 354	40
41	16.219 641	.231 208	.061 654	.376 168	2.658 387	.023 192	41
42	15.988 433	.238 992	.062 545	.385 060	2.596 998	.024 084	42
43	15.749 441	.246 983	.063 494	.394 252	2.536 449	.025 033	43
44	15.502 458	.254 787	.064 506	.403 752	2.476 768	.026 044	44
45	15.247 671	.262 816	.065 584	.413 551	2.418 081	.027 122	45
46	14.984 855	.270 481	.066 734	.423 659	2.360 389	.028 273	46
47	14.714 374	.278 184	.067 961	.434 063	2.303 813	.029 499	47
48	14.436 190	.285 538	.069 270	.444 762	2.248 394	.030 809	48
49	14.150 652	.292 347	.070 668	.455 744	2.194 214	.032 207	49
50	13.858 305	.298 798	.072 159	.466 988	2.141 383	.033 697	50
51	13.559 507	.304 891	.073 749	.478 481	2.089 947	.035 287	51
52	13.254 616	.310 621	.075 445	.490 207	2.039 955	.036 984	52
53	12.943 995	.315 986	.077 256	.502 154	1.991 421	.038 794	53
54	12.628 009	.320 787	.079 189	.514 308	1.944 360	.040 728	54
55	12.307 222	.325 193	.081 253	.526 646	1.898 809	.042 792	55
56	11.982 029	.328 997	.083 458	.539 153	1.854 761	.044 997	56
57	11.653 032	.332 350	.085 815	.551 807	1.812 228	.047 353	57
58	11.320 682	.335 215	.088 334	.564 589	1.771 200	.049 872	58
59	10.985 467	.337 359	.091 029	.577 483	1.731 653	.052 568	59

Life Annuity Due, Single Premium and Annual Premium

American Experience 4%

x	a_x	$-\Delta a_x$	$1/a_x$	A_x	$1/A_x$	P_x	x
60	10.648 108	.338 888	.093 913	.590 458	1.693 601	.055 452	60
61	10.309 220	.339 711	.097 001	.603 492	1.657 023	.058 539	61
62	9.969 509	.339 893	.100 306	.616 557	1.621 910	.061 844	62
63	9.629 616	.339 480	.103 846	.629 631	1.588 232	.065 385	63
64	9.290 136	.338 314	.107 641	.642 687	1.555 967	.069 180	64
65	8.951 822	.336 192	.111 709	.655 699	1.525 090	.073 248	65
66	8.615 630	.333 384	.116 068	.668 629	1.495 598	.077 607	66
67	8.282 246	.329 796	.120 740	.681 452	1.467 455	.082 279	67
68	7.952 450	.325 274	.125 747	.694 137	1.440 638	.087 286	68
69	7.627 176	.320 151	.131 110	.706 647	1.415 134	.092 649	69
70	7.307 025	.314 215	.136 855	.718 961	1.390 896	.098 393	70
71	6.992 810	.307 954	.143 004	.731 046	1.367 903	.104 543	71
72	6.684 856	.301 980	.149 592	.742 891	1.346 093	.111 130	72
73	6.382 876	.296 709	.156 669	.754 505	1.325 372	.118 208	73
74	6.086 167	.292 329	.164 307	.765 916	1.305 626	.125 845	74
75	5.793 838	.288 726	.172 597	.777 159	1.286 738	.134 136	75
76	5.505 112	.285 806	.181 649	.788 265	1.268 609	.143 188	76
77	5.219 306	.282 978	.191 596	.799 257	1.251 162	.153 135	77
78	4.936 328	.279 928	.202 580	.810 141	1.234 353	.164 119	78
79	4.656 400	.276 804	.214 758	.820 909	1.218 162	.176 296	79
80	4.379 596	.271 308	.228 332	.831 554	1.202 568	.189 870	80
81	4.108 288	.266 314	.243 410	.841 988	1.187 665	.204 949	81
82	3.841 974	.262 415	.260 283	.852 232	1.173 389	.221 821	82
83	3.579 559	.261 138	.279 364	.862 326	1.159 654	.240 904	83
84	3.318 421	.261 063	.301 348	.872 367	1.146 307	.262 887	84
85	3.057 358	.258 410	.327 080	.882 409	1.133 261	.288 618	85
86	2.798 948	.251 137	.357 277	.892 349	1.120 638	.318 816	86
87	2.547 811	.238 240	.392 494	.902 006	1.108 640	.354 032	87
88	2.309 571	.224 869	.432 981	.911 168	1.097 492	.394 519	88
89	2.084 702	.217 426	.479 685	.919 817	1.087 173	.441 222	89
90	1.867 276	.213 671	.535 540	.928 179	1.077 378	.497 077	90
91	1.653 605	.199 698	.604 739	.936 396	1.067 924	.566 277	91
92	1.453 907	.163 198	.687 802	.944 081	1.059 231	.649 340	92
93	1.290 709	.153 345	.774 768	.950 362	1.052 231	.736 310	93
94	1.137 364	.137 364	.879 226	.956 256	1.045 745	.840 766	94
95	1.000 000		1.000 000	.961 538	1.040 001	.961 538	95

Accumulated Pure Endowment

4% $1/A_{x\overline{n}|}^{1} = D_x/D_{x+n}$ American Experience

n	$x=15$	$x=16$	$x=17$	$x=18$	$x=19$	n
1	1.0480	1.0480	1.0481	1.0481	1.0481	1
2	1.0983	1.0984	1.0985	1.0986	1.0986	2
3	1.1511	1.1512	1.1513	1.1515	1.1516	3
4	1.2065	1.2066	1.2068	1.2070	1.2072	4
5	1.2646	1.2648	1.2650	1.2653	1.2656	5
6	1.3255	1.3258	1.3261	1.3265	1.3269	6
7	1.3894	1.3898	1.3902	1.3907	1.3912	7
8	1.4565	1.4570	1.4575	1.4581	1.4587	8
9	1.5269	1.5275	1.5281	1.5288	1.5295	9
10	1.6008	1.6015	1.6023	1.6031	1.6040	10
11	1.6784	1.6792	1.6801	1.6811	1.6822	11
12	1.7598	1.7608	1.7619	1.7631	1.7643	12
13	1.8454	1.8465	1.8478	1.8492	1.8507	13
14	1.9352	1.9366	1.9381	1.9397	1.9414	14
15	2.0295	2.0311	2.0329	2.0348	2.0368	15
16	2.1286	2.1305	2.1326	2.1348	2.1371	16
17	2.2328	2.2350	2.2374	2.2399	2.2427	17
18	2.3423	2.3448	2.3476	2.3506	2.3538	18
19	2.4574	2.4603	2.4635	2.4670	2.4708	19
20	2.5784	2.5818	2.5856	2.5896	2.5940	20
21	2.7058	2.7098	2.7141	2.7188	2.7239	21
22	2.8398	2.8444	2.8494	2.8549	2.8608	22
23	2.9809	2.9863	2.9921	2.9984	3.0054	23
24	3.1296	3.1358	3.1425	3.1499	3.1579	24
25	3.2863	3.2935	3.3013	3.3098	3.3192	25
26	3.4516	3.4598	3.4689	3.4788	3.4897	26
27	3.6259	3.6355	3.6460	3.6576	3.6703	27
28	3.8100	3.8211	3.8334	3.8468	3.8617	28
29	4.0045	4.0175	4.0317	4.0475	4.0650	29
30	4.2103	4.2253	4.2420	4.2605	4.2812	30
31	4.4281	4.4457	4.4653	4.4871	4.5115	31
32	4.6591	4.6797	4.7027	4.7285	4.7576	32
33	4.9044	4.9286	4.9558	4.9864	5.0209	33
34	5.1651	5.1938	5.2260	5.2624	5.3033	34
35	5.4431	5.4770	5.5153	5.5584	5.6070	35
36	5.7399	5.7801	5.8255	5.8767	5.9345	36
37	6.0576	6.1053	6.1591	6.2200	6.2887	37
38	6.3984	6.4549	6.5189	6.5912	6.6729	38
39	6.7648	6.8320	6.9079	6.9939	7.0912	39
40	7.1599	7.2397	7.3300	7.4322	7.5479	40
41	7.5872	7.6821	7.7894	7.9110	8.0488	41
42	8.0508	8.1635	8.2911	8.4359	8.6003	42
43	8.5554	8.6894	8.8413	9.0140	9.2103	43
44	9.1064	9.2660	9.4472	9.6533	9.8882	44
45	9.7108	9.9009	10.1173	10.3638	10.6450	45
46	10.3762	10.6032	10.8618	11.1570	11.4947	46
47	11.1121	11.3835	11.6932	12.0475	12.4542	47
48	11.9299	12.2548	12.6265	13.0532	13.5444	48
49	12.8430	13.2329	13.6806	14.1958	14.7909	49
50	13.8681	14.3376	14.8780	15.5023	16.2263	50

Accumulated Pure Endowment

American Experience $1/A_{x\overline{n}|}^{1} = D_x/D_{x+n}$ 4%

n	$x=20$	$x=21$	$x=22$	$x=23$	$x=24$	n
1	1.0482	1.0482	1.0483	1.0483	1.0484	1
2	1.0987	1.0989	1.0990	1.0991	1.0992	2
3	1.1518	1.1520	1.1522	1.1523	1.1525	3
4	1.2075	1.2077	1.2080	1.2083	1.2085	4
5	1.2659	1.2662	1.2666	1.2670	1.2674	5
6	1.3273	1.3277	1.3281	1.3286	1.3291	6
7	1.3917	1.3922	1.3928	1.3934	1.3941	7
8	1.4593	1.4600	1.4607	1.4615	1.4623	8
9	1.5303	1.5311	1.5320	1.5330	1.5340	9
10	1.6049	1.6059	1.6070	1.6081	1.6093	10
11	1.6833	1.6845	1.6858	1.6872	1.6886	11
12	1.7657	1.7671	1.7686	1.7703	1.7720	12
13	1.8522	1.8539	1.8558	1.8577	1.8598	13
14	1.9433	1.9453	1.9474	1.9497	1.9522	14
15	2.0390	2.0413	2.0439	2.0466	2.0496	15
16	2.1397	2.1425	2.1454	2.1487	2.1522	16
17	2.2457	2.2489	2.2525	2.2563	2.2605	17
18	2.3573	2.3611	2.3652	2.3697	2.3746	18
19	2.4749	2.4793	2.4842	2.4894	2.4952	19
20	2.5988	2.6040	2.6096	2.6158	2.6226	20
21	2.7294	2.7355	2.7422	2.7494	2.7574	21
22	2.8673	2.8744	2.8821	2.8907	2.9000	22
23	3.0129	3.0212	3.0302	3.0402	3.0513	23
24	3.1667	3.1764	3.1870	3.1988	3.2119	24
25	3.3294	3.3408	3.3533	3.3672	3.3827	25
26	3.5017	3.5150	3.5298	3.5462	3.5647	26
27	3.6844	3.7000	3.7175	3.7371	3.7591	27
28	3.8783	3.8968	3.9175	3.9408	3.9672	28
29	4.0845	4.1065	4.1311	4.1590	4.1903	29
30	4.3043	4.3304	4.3598	4.3929	4.4303	30
31	4.5390	4.5701	4.6050	4.6445	4.6891	31
32	4.7903	4.8272	4.8688	4.9158	4.9689	32
33	5.0597	5.1036	5.1532	5.2092	5.2725	33
34	5.3495	5.4017	5.4607	5.5274	5.6030	34
35	5.6620	5.7241	5.7943	5.8738	5.9639	35
36	5.9999	6.0738	6.1575	6.2522	6.3597	36
37	6.3665	6.4545	6.5541	6.6671	6.7954	37
38	6.7655	6.8702	6.9890	7.1239	7.2774	38
39	7.2013	7.3262	7.4679	7.6292	7.8130	39
40	7.6791	7.8282	7.9976	8.1907	8.4110	40
41	8.2053	8.3834	8.5862	8.8176	9.0824	41
42	8.7883	9.0004	9.2434	9.5214	9.8405	42
43	9.4340	9.6893	9.9812	10.3163	10.7019	43
44	10.1561	10.4626	10.8144	11.2193	11.6868	44
45	10.9667	11.3360	11.7610	12.2518	12.8210	45
46	11.8822	12.3283	12.8434	13.4408	14.1363	46
47	12.9223	13.4629	14.0899	14.8197	15.6733	47
48	14.1116	14.7695	15.5353	16.4310	17.4833	48
49	15.4811	16.2846	17.2245	18.3285	19.6300	49
50	17.0692	18.0553	19.2135	20.5790	22.1947	50

Accumulated Pure Endowment

4% $1/A_{x\overline{n}|}^{1} = D_x/D_{x+n}$ American Experience

n	$x=25$	$x=26$	$x=27$	$x=28$	$x=29$	n
1	1.0485	1.0485	1.0486	1.0487	1.0488	1
2	1.0993	1.0995	1.0996	1.0998	1.1000	2
3	1.1528	1.1530	1.1532	1.1535	1.1538	3
4	1.2089	1.2092	1.2096	1.2099	1.2104	4
5	1.2678	1.2683	1.2687	1.2693	1.2698	5
6	1.3297	1.3303	1.3309	1.3316	1.3324	6
7	1.3948	1.3955	1.3964	1.3972	1.3982	7
8	1.4632	1.4641	1.4651	1.4663	1.4675	8
9	1.5351	1.5362	1.5375	1.5389	1.5404	9
10	1.6107	1.6121	1.6137	1.6154	1.6172	10
11	1.6902	1.6920	1.6939	1.6959	1.6982	11
12	1.7740	1.7761	1.7784	1.7808	1.7836	12
13	1.8621	1.8646	1.8674	1.8704	1.8737	13
14	1.9550	1.9580	1.9613	1.9649	1.9688	14
15	2.0529	2.0565	2.0604	2.0646	2.0693	15
16	2.1561	2.1603	2.1650	2.1700	2.1757	16
17	2.2650	2.2700	2.2755	2.2816	2.2882	17
18	2.3800	2.3859	2.3924	2.3996	2.4076	18
19	2.5015	2.5085	2.5162	2.5248	2.5343	19
20	2.6301	2.6383	2.6475	2.6577	2.6691	20
21	2.7662	2.7759	2.7868	2.7990	2.8127	21
22	2.9104	2.9220	2.9350	2.9496	2.9661	22
23	3.0636	3.0774	3.0929	3.1104	3.1303	23
24	3.2265	3.2430	3.2616	3.2826	3.3064	24
25	3.4002	3.4199	3.4421	3.4673	3.4957	25
26	3.5856	3.6091	3.6358	3.6658	3.6999	26
27	3.7840	3.8122	3.8440	3.8800	3.9207	27
28	3.9969	4.0305	4.0685	4.1115	4.1603	28
29	4.2258	4.2659	4.3113	4.3627	4.4210	29
30	4.4726	4.5205	4.5747	4.6361	4.7058	30
31	4.7395	4.7967	4.8614	4.9348	5.0180	31
32	5.0291	5.0973	5.1746	5.2622	5.3619	32
33	5.3443	5.4257	5.5180	5.6228	5.7422	33
34	5.6886	5.7857	5.8961	6.0216	6.1648	34
35	6.0661	6.1822	6.3143	6.4648	6.6366	35
36	6.4817	6.6207	6.7790	6.9596	7.1664	36
37	6.9415	7.1079	7.2978	7.5151	7.7646	37
38	7.4523	7.6520	7.8803	8.1425	8.4442	38
39	8.0227	8.2627	8.5381	8.8552	9.2214	39
40	8.6631	8.9525	9.2855	9.6702	10.1163	40
41	9.3863	9.7361	10.1401	10.6086	11.1541	41
42	10.2079	10.6321	11.1242	11.6969	12.3669	42
43	11.1473	11.6640	12.2653	12.9688	13.7950	43
44	12.2291	12.8605	13.5990	14.4664	15.4889	44
45	13.4837	14.2588	15.1694	16.2427	17.5126	45
46	14.9498	15.9055	17.0320	18.3648	19.9491	46
47	16.6762	17.8585	19.2573	20.9200	22.9091	47
48	18.7238	20.1917	21.9367	24.0240	26.5409	48
49	21.1701	23.0011	25.1915	27.8325	31.0512	49
50	24.1156	26.4139	29.1850	32.5623	36.7314	50

Accumulated Pure Endowment

American Experience $1/A^{\frac{1}{xn}} = D_x/D_{x+n}$ 4%

n	$x=30$	$x=31$	$x=32$	$x=33$	$x=34$	n
1	1.0488	1.0489	1.0490	1.0491	1.0493	1
2	1.1002	1.1004	1.1006	1.1008	1.1011	2
3	1.1541	1.1544	1.1548	1.1552	1.1556	3
4	1.2108	1.2113	1.2118	1.2124	1.2131	4
5	1.2705	1.2711	1.2719	1.2727	1.2736	5
6	1.3332	1.3341	1.3351	1.3362	1.3373	6
7	1.3993	1.4004	1.4017	1.4031	1.4046	7
8	1.4688	1.4702	1.4718	1.4736	1.4755	8
9	1.5421	1.5439	1.5459	1.5480	1.5504	9
10	1.6193	1.6215	1.6239	1.6266	1.6296	10
11	1.7007	1.7034	1.7064	1.7097	1.7133	11
12	1.7866	1.7899	1.7935	1.7975	1.8020	12
13	1.8773	1.8813	1.8857	1.8905	1.8960	13
14	1.9731	1.9779	1.9832	1.9892	1.9958	14
15	2.0745	2.0803	2.0867	2.0939	2.1019	15
16	2.1819	2.1888	2.1965	2.2052	2.2150	16
17	2.2957	2.3040	2.3133	2.3239	2.3358	17
18	2.4165	2.4265	2.4378	2.4506	2.4651	18
19	2.5450	2.5571	2.5707	2.5862	2.6037	19
20	2.6820	2.6965	2.7130	2.7317	2.7529	20
21	2.8282	2.8458	2.8656	2.8882	2.9137	21
22	2.9847	3.0059	3.0298	3.0569	3.0875	22
23	3.1527	3.1780	3.2067	3.2393	3.2762	23
24	3.3332	3.3636	3.3981	3.4372	3.4815	24
25	3.5279	3.5644	3.6057	3.6526	3.7058	25
26	3.7384	3.7822	3.8317	3.8879	3.9517	26
27	3.9669	4.0192	4.0785	4.1459	4.2225	27
28	4.2155	4.2781	4.3492	4.4300	4.5220	28
29	4.4870	4.5620	4.6472	4.7442	4.8548	29
30	4.7848	4.8746	4.9768	5.0934	5.2263	30
31	5.1126	5.2203	5.3431	5.4832	5.6435	31
32	5.4753	5.6045	5.7520	5.9208	6.1146	32
33	5.8782	6.0335	6.2111	6.4151	6.6498	33
34	6.3281	6.5150	6.7296	6.9766	7.2618	34
35	6.8332	7.0589	7.3187	7.6187	7.9666	35
36	7.4036	7.6768	7.9923	8.3581	8.7838	36
37	8.0517	8.3833	8.7679	9.2155	9.7389	37
38	8.7927	9.1969	9.6674	10.2176	10.8636	38
39	9.6460	10.1403	10.7185	11.3975	12.1975	39
40	10.6356	11.2429	11.9563	12.7969	13.7911	40
41	11.7920	12.5413	13.4244	14.4689	15.7100	41
42	13.1538	14.0812	15.1783	16.4820	18.0409	42
43	14.7689	15.9209	17.2901	18.9275	20.9009	43
44	16.6985	18.1361	19.8555	21.9281	24.4528	44
45	19.0218	20.8270	23.0032	25.6545	28.9259	45
46	21.8442	24.1287	26.9124	30.3475	34.6471	46
47	25.3071	28.2291	31.8354	36.3499	42.1176	47
48	29.6077	33.3930	38.1321	44.1875	52.0591	48
49	35.0239	39.9978	46.3540	54.6176	65.5701	49
50	41.9512	48.6219	57.2955	68.7927	84.3514	50

Accumulated Pure Endowment

4% $1/A_{x\,\overline{n}|} = D_x/D_{x+n}$ American Experience

n	$x=35$	$x=36$	$x=37$	$x=38$	$x=39$	n
1	1.0494	1.0495	1.0497	1.0499	1.0501	1
2	1.1014	1.1017	1.1020	1.1024	1.1029	2
3	1.1561	1.1566	1.1572	1.1579	1.1586	3
4	1.2138	1.2146	1.2154	1.2164	1.2174	4
5	1.2745	1.2756	1.2768	1.2781	1.2796	5
6	1.3386	1.3401	1.3416	1.3434	1.3453	6
7	1.4062	1.4081	1.4101	1.4124	1.4149	7
8	1.4776	1.4800	1.4826	1.4855	1.4887	8
9	1.5531	1.5560	1.5593	1.5630	1.5671	9
10	1.6329	1.6366	1.6406	1.6452	1.6504	10
11	1.7174	1.7219	1.7270	1.7327	1.7392	11
12	1.8070	1.8126	1.8188	1.8260	1.8341	12
13	1.9021	1.9089	1.9167	1.9255	1.9356	13
14	2.0032	2.0117	2.0212	2.0321	2.0445	14
15	2.1110	2.1214	2.1331	2.1464	2.1615	15
16	2.2261	2.2388	2.2531	2.2694	2.2878	16
17	2.3493	2.3647	2.3821	2.4019	2.4243	17
18	2.4815	2.5001	2.5213	2.5453	2.5725	18
19	2.6236	2.6462	2.6717	2.7008	2.7337	19
20	2.7769	2.8041	2.8350	2.8700	2.9098	20
21	2.9426	2.9754	3.0127	3.0549	3.1029	21
22	3.1224	3.1619	3.2067	3.2576	3.3155	22
23	3.3181	3.3656	3.4195	3.4808	3.5506	23
24	3.5318	3.5889	3.6538	3.7277	3.8119	24
25	3.7661	3.8348	3.9130	4.0021	4.1037	25
26	4.0242	4.1068	4.2009	4.3084	4.4313	26
27	4.3096	4.4091	4.5225	4.6523	4.8012	27
28	4.6268	4.7465	4.8835	5.0406	5.2214	28
29	4.9810	5.1254	5.2911	5.4819	5.7020	29
30	5.3785	5.5532	5.7543	5.9864	6.2553	30
31	5.8275	6.0393	6.2839	6.5673	6.8970	31
32	6.3376	6.5951	6.8937	7.2411	7.6470	32
33	6.9209	7.2352	7.6009	8.0284	8.5301	33
34	7.5925	7.9774	8.4274	8.9555	9.5774	34
35	8.3714	8.8448	9.4005	10.0551	10.8287	35
36	9.2817	9.8662	10.5548	11.3689	12.3354	36
37	10.3535	11.0777	11.9338	12.9507	14.1657	37
38	11.6248	12.5250	13.5942	14.8722	16.4113	38
39	13.1436	14.2677	15.6112	17.2299	19.2002	39
40	14.9723	16.3846	18.0861	20.1579	22.7125	40
41	17.1938	18.9821	21.1596	23.8454	27.2048	41
42	19.9195	22.2078	25.0303	28.5617	33.0706	42
43	23.3046	26.2703	29.9811	34.7201	40.8767	43
44	27.5678	31.4663	36.4454	42.9155	51.4855	44
45	33.0204	38.2509	45.0481	54.0535	66.2325	45
46	40.1400	47.2797	56.7395	69.5360	87.3423	46
47	49.6148	59.5504	72.9914	91.6987	118.826	47
48	62.4914	76.6074	96.2555	124.752	168.290	48
49	80.3908	101.024	130.952	176.684	251.114	49
50	106.013	137.439	185.464	263.639	399.748	50

Accumulated Pure Endowment

American Experience $1/A_{x\overline{n}|}^{1} = D_x/D_{x+n}$ 4%

n	$x=40$	$x=41$	$x=42$	$x=43$	$x=44$	n
1	1.0503	1.0505	1.0508	1.0511	1.0514	1
2	1.1033	1.1039	1.1044	1.1051	1.1058	2
3	1.1594	1.1602	1.1612	1.1622	1.1635	3
4	1.2186	1.2198	1.2213	1.2229	1.2247	4
5	1.2812	1.2829	1.2850	1.2872	1.2898	5
6	1.3475	1.3499	1.3526	1.3557	1.3592	6
7	1.4177	1.4209	1.4245	1.4286	1.4334	7
8	1.4924	1.4965	1.5012	1.5065	1.5127	8
9	1.5717	1.5770	1.5830	1.5899	1.5978	9
10	1.6563	1.6630	1.6706	1.6794	1.6893	10
11	1.7466	1.7550	1.7646	1.7755	1.7880	11
12	1.8433	1.8538	1.8657	1.8792	1.8947	12
13	1.9470	1.9599	1.9747	1.9914	2.0104	13
14	2.0585	2.0744	2.0925	2.1131	2.1365	14
15	2.1787	2.1982	2.2204	2.2455	2.2740	15
16	2.3087	2.3325	2.3595	2.3901	2.4249	16
17	2.4498	2.4787	2.5115	2.5487	2.5911	17
18	2.6033	2.6384	2.6782	2.7234	2.7749	18
19	2.7710	2.8134	2.8617	2.9166	2.9791	19
20	2.9549	3.0062	3.0646	3.1312	3.2071	20
21	3.1574	3.2194	3.2902	3.3709	3.4631	21
22	3.3813	3.4564	3.5420	3.6399	3.7522	22
23	3.6302	3.7209	3.8247	3.9438	4.0806	23
24	3.9081	4.0179	4.1440	4.2890	4.4562	24
25	4.2200	4.3533	4.5067	4.6837	4.8887	25
26	4.5723	4.7344	4.9215	5.1383	5.3902	26
27	4.9725	5.1701	5.9530	5.6654	5.9763	27
28	5.4301	5.6719	6.5682	6.2814	6.6664	28
29	5.9571	6.2537	7.2824	7.0067	7.4849	29
30	6.5682	6.9337	7.3625	7.8671	8.3629	30
31	7.2824	7.7344	8.2665	8.8949	9.6404	31
32	8.1233	8.6841	9.3466	10.1326	11.0707	32
33	9.1208	9.8187	10.6470	11.6359	12.8258	33
34	10.3124	11.1848	12.2267	13.4806	15.0054	34
35	11.7473	12.8443	14.1650	15.7715	17.7503	35
36	13.4902	14.8806	16.5722	18.6565	21.2611	36
37	15.6289	17.4093	19.6038	22.3466	25.8453	37
38	18.2848	20.5940	23.4812	27.1648	31.9459	38
39	21.6296	24.6673	28.5441	33.5769	40.2369	39
40	25.9077	29.9859	35.2817	42.2912	51.7620	40
41	31.4938	37.0639	44.4384	54.4046	68.2597	41
42	38.9277	46.6831	57.1669	71.7447	92.8645	42
43	49.0307	60.0546	75.3874	97.6056	131.522	43
44	63.0746	79.1954	102.561	138.237	196.251	44
45	83.1779	107.742	145.255	206.270	312.411	45
46	113.160	152.593	216.743	328.361	537.805	46
47	160.266	227.692	345.033	565.262	102.541	47
48	239.142	362.462	593.962	1 077.77	228.098	48
49	380.689	623.965	1 132.49	2 397.43	6 486.07	49
50	655.342	1 189.69	2 519.15	6 817.21	25 376.0	50

Accumulated Pure Endowment

4% $1/A^{\frac{1}{xn}} = D_x/D_{x+n}$ American Experience

n	$x=45$	$x=46$	$x=47$	$x=48$	$x=49$	n
1	1.0517	1.0522	1.0526	1.0532	1.0538	1
2	1.1066	1.1075	1.1086	1.1098	1.1113	2
3	1.1648	1.1664	1.1683	1.1704	1.1728	3
4	1.2268	1.2292	1.2320	1.2351	1.2388	4
5	1.2928	1.2962	1.3002	1.3046	1.3097	5
6	1.3633	1.3680	1.3733	1.3793	1.3862	6
7	1.4388	1.4449	1.4519	1.4599	1.4689	7
8	1.5197	1.5277	1.5367	1.5470	1.5587	8
9	1.6067	1.6169	1.6285	1.6416	1.6564	9
10	1.7006	1.7134	1.7280	1.7444	1.7631	10
11	1.8021	1.8181	1.8363	1.8568	1.8801	11
12	1.9122	1.9320	1.9545	1.9800	2.0089	12
13	2.0320	2.0565	2.0842	2.1157	2.1514	13
14	2.1629	2.1930	2.2271	2.2658	2.3097	14
15	2.3064	2.3432	2.3850	2.4325	2.4865	15
16	2.4645	2.5094	2.5605	2.6187	2.6849	16
17	2.6393	2.6941	2.7565	2.8277	2.9091	17
18	2.8335	2.9004	2.9765	3.0638	3.1637	18
19	3.0504	3.1318	3.2250	3.3320	3.4549	19
20	3.2939	3.3933	3.5073	3.6386	3.7902	20
21	3.5688	3.6903	3.8301	3.9917	4.1790	21
22	3.8812	4.0299	4.2018	4.4012	4.6334	22
23	4.2384	4.4210	4.6329	4.8798	5.1685	23
24	4.6497	4.8745	5.1366	5.4433	5.8031	24
25	5.1267	5.4045	5.7298	6.1116	6.5613	25
26	5.6842	6.0287	6.4333	6.9101	7.4742	26
27	6.3406	6.7689	7.2738	7.8716	8.5831	27
28	7.1191	7.6533	8.2859	9.0395	9.9438	28
29	8.0493	8.7181	9.5153	10.4726	11.6337	29
30	9.1692	10.0117	11.0238	12.2523	13.7618	30
31	10.5297	11.5988	12.8971	14.4935	16.4837	31
32	12.1989	13.5699	15.2564	17.3602	20.0378	32
33	14.2720	16.0522	18.2739	21.1033	24.7676	33
34	16.8828	19.2272	22.2140	26.0846	31.1959	34
35	20.2220	23.3728	27.4575	32.8544	40.1310	35
36	24.5822	28.8898	34.5836	42.2649	52.9217	36
37	30.3846	36.3877	44.4894	55.7357	71.9977	37
38	38.2704	46.8102	58.6692	75.8261	101.969	38
39	49.2322	61.7297	79.8170	107.391	152.153	39
40	64.9236	83.9806	113.043	160.244	242.212	40
41	88.3259	118.940	168.678	255.091	416.959	41
42	125.094	177.477	268.517	439.131	795.001	42
43	186.659	282.524	462.243	837.275	1 768.44	43
44	297.142	486.356	881.343	1 862.47	5 028.64	44
45	511.520	927.318	1 960.50	5 296.04	19 673.9	45
46	975.298	2 062.77	5 574.78	20 720.1	143 225.	46
47	2 169.50	5 865.59	21 810.6	150 841.		47
48	6 169.07	22 948.4	158 780.			48
49	24 135.7	167 062.				49
50	175 706.					50

American Experience

$1/A_{x\overline{n}|}^{1} = D_x/D_{x+n}$

4%

n	$x=50$	$x=51$	$x=52$	$x=53$	$x=54$	n
1	1.0545	1.0553	1.0563	1.0573	1.0584	1
2	1.1129	1.1147	1.1167	1.1190	1.1216	2
3	1.1755	1.1786	1.1820	1.1858	1.1901	3
4	1.2428	1.2474	1.2525	1.2583	1.2647	4
5	1.3154	1.3218	1.3290	1.3371	1.3462	5
6	1.3939	1.4026	1.4123	1.4232	1.4355	6
7	1.4791	1.4905	1.5033	1.5177	1.5339	7
8	1.5718	1.5865	1.6031	1.6217	1.6426	8
9	1.6730	1.6918	1.7129	1.7367	1.7635	9
10	1.7841	1.8077	1.8344	1.8645	1.8985	10
11	1.9063	1.9359	1.9694	2.0072	2.0500	11
12	2.0415	2.0784	2.1202	2.1675	2.2212	12
13	2.1918	2.2375	2.2894	2.3484	2.4156	13
14	2.3595	2.4161	2.4805	2.5539	2.6379	14
15	2.5478	2.6178	2.6976	2.7890	2.8939	15
16	2.7605	2.8469	2.9459	3.0597	3.1908	16
17	3.0022	3.1089	3.2318	3.3736	3.5378	17
18	3.2785	3.4106	3.5633	3.7404	3.9463	18
19	3.5966	3.7605	3.9508	4.1723	4.4308	19
20	3.9656	4.1694	4.4070	4.6846	5.0097	20
21	4.3968	4.6509	4.9481	5.2966	5.7068	21
22	4.9045	5.2220	5.4946	6.0336	6.5535	22
23	5.5067	5.9042	6.3730	6.9288	7.5924	23
24	6.2262	6.7257	7.3186	8.0272	8.8827	24
25	7.0925	7.7236	8.4788	9.3914	10.5076	25
26	8.1448	8.9481	9.9197	11.1093	12.5859	26
27	9.4360	10.4687	11.7343	13.3066	15.2996	27
28	11.0396	12.3837	14.0552	16.1758	18.9109	28
29	13.0590	14.8331	17.0857	19.9939	23.8189	29
30	15.6420	18.0313	21.1187	25.1830	30.6414	30
31	19.0146	22.2875	26.5996	32.3961	40.4075	31
32	23.5029	28.0718	34.2186	42.7216	54.9727	32
33	29.6026	36.1124	45.1249	58.1209	77.8566	33
34	38.0817	47.6223	61.3905	82.3153	116.174	34
35	50.2193	64.7881	86.9460	122.827	184.937	35
36	68.3212	91.7580	129.737	195.528	318.363	36
37	96.7619	136.917	206.527	336.595	607.011	37
38	144.383	217.958	355.530	641.773	1 350.26	38
39	229.844	375.207	677.876	1 427.59	3 839.54	39
40	395.668	715.393	1 507.90	4 059.42	15 021.7	40
41	754.406	1 591.35	4 287.79	15 882.0	109 357.	41
42	1 678.13	4 525.09	16 775.4	115 620.		42
43	4 771.86	17 703.9	122 124.			43
44	18 669.3	128 883.				44
45	135 911.					45

Accumulated Pure Endowment

4% $1/A_{x\,\overline{n}|} = D_x/D_{x+n}$ American Experience

n	$x=55$	$x=56$	$x=57$	$x=58$	$x=59$	n
1	1.0597	1.0611	1.0627	1.0644	1.0664	1
2	1.1244	1.1276	1.1311	1.1351	1.1394	2
3	1.1949	1.2002	1.2062	1.2128	1.2202	3
4	1.2719	1.2799	1.2888	1.2988	1.3101	4
5	1.3563	1.3676	1.3803	1.3944	1.4103	5
6	1.4492	1.4646	1.4818	1.5012	1.5229	6
7	1.5520	1.5724	1.5952	1.6210	1.6500	7
8	1.6662	1.6927	1.7226	1.7563	1.7945	8
9	1.7937	1.8278	1.8664	1.9100	1.9596	9
10	1.9369	1.9804	2.0297	2.0858	2.1498	10
11	2.0986	2.1538	2.2165	2.2882	2.3703	11
12	2.2823	2.3520	2.4317	2.5230	2.6280	12
13	2.4923	2.5802	2.6811	2.7973	2.9315	13
14	2.7342	2.8449	2.9726	3.1204	3.2915	14
15	3.0147	3.1543	3.3151	3.5035	3.7215	15
16	3.3425	3.5185	3.7231	3.9612	4.2393	16
17	3.7285	3.9505	4.2095	4.5124	4.8683	17
18	4.1863	4.4667	4.7952	5.1819	5.6401	18
19	4.7333	5.0882	5.5067	6.0034	6.5986	19
20	5.3918	5.8431	6.3796	7.0236	7.8056	20
21	6.1918	6.7694	7.4638	8.3084	9.3495	21
22	7.1734	7.9198	8.8291	9.9517	11.3654	22
23	8.3925	9.3686	10.5754	12.0975	14.0481	23
24	9.9277	11.2216	12.8556	14.9530	17.6940	24
25	11.8913	13.6411	15.8901	18.8338	22.7621	25
26	14.4552	16.8610	20.0141	24.2283	30.0170	26
27	17.8673	21.2370	25.7468	31.9505	40.8368	27
28	22.5044	27.3199	33.9529	43.4673	57.8363	28
29	28.9503	36.0274	46.1914	61.5617	86.3006	29
30	38.1775	49.0137	65.4199	91.8595	137.382	30
31	51.9389	69.4171	97.6165	146.231	236.498	31
32	73.5599	103.581	155.395	251.731	450.922	32
33	109.763	164.890	267.508	479.967	1 003.05	33
34	174.731	283.853	510.048	1 067.66	2 852.23	34
35	300.793	541.212	1 134.57	3 035.95	11 159.0	35
36	573.511	1 203.90	3 226.22	11 877.8	81 236.6	36
37	1 275.74	3 423.34	12 622.2	86 469.3		37
38	3 627.64	13 393.4	91 888.5			38
39	14 192.7	97 502.9				39
40	103 322.					40

n	$x=90$	$x=91$	$x=92$	$x=93$	$x=94$	n
1	1.9067	2.2244	2.8436	3.9124	7.2799	1
2	4.2413	6.3253	11.1250	28.4818		2
3	12.0603	24.7471	80.9895			3
4	47.1844	180.157				4
5	343.498					5

Accumulated Pure Endowment

American Experience — $1/A_{x\,\overline{n}|} = D_x/D_{x+n}$ — 4%

n	$x=60$	$x=61$	$x=62$	$x=63$	$x=64$	n
1	1.0685	1.0709	1.0736	1.0765	1.0798	1
2	1.1443	1.1497	1.1558	1.1625	1.1700	2
3	1.2285	1.2377	1.2480	1.2595	1.2724	3
4	1.3226	1.3365	1.3522	1.3698	1.3895	4
5	1.4281	1.4481	1.4706	1.4958	1.5243	5
6	1.5473	1.5749	1.6059	1.6410	1.6807	6
7	1.6828	1.7198	1.7618	1.8093	1.8634	7
8	1.8377	1.8867	1.9425	2.0061	2.0786	8
9	2.0160	2.0803	2.1537	2.2377	2.3338	9
10	2.2228	2.3065	2.4024	2.5125	2.6388	10
11	2.4645	2.5728	2.6974	2.8407	3.0059	11
12	2.7491	2.8887	3.0498	3.2360	3.4519	12
13	3.0866	3.2661	3.4741	3.7161	3.9991	13
14	3.4899	3.7206	3.9896	4.3052	4.6788	14
15	3.9755	4.2726	4.6221	5.0369	5.5346	15
16	4.5654	4.9499	5.4076	5.9583	6.6293	16
17	5.2891	5.7911	6.3968	7.1367	8.0587	17
18	6.1879	6.8505	7.6620	8.6755	9.9609	18
19	7.3199	8.2054	9.3140	10.7233	12.5461	19
20	8.7677	9.9746	11.5125	13.5064	16.1396	20
21	10.6581	12.3291	14.5004	17.3750	21.2837	21
22	13.1739	15.5288	18.6537	22.9128	28.9556	22
23	16.5929	19.9768	24.5991	31.1719	41.0092	23
24	21.3456	26.3439	33.4660	44.1481	61.1920	24
25	28.1490	35.8397	47.3972	65.8757	97.4114	25
26	38.2955	50.7590	70.7238	104.867	167.690	26
27	54.2371	75.7402	112.585	180.525	319.729	27
28	80.9301	120.571	193.811	344.202	711.220	28
29	128.832	207.558	369.533	765.658	2 022.39	29
30	221.780	395.743	822.006	2 177.19	7 912.36	30
31	422.861	880.309	2 337.42	8 517.98	57 601.3	31
32	940.630	2 503.21	9 144.85	62 010.2		32
33	2 674.73	9 793.48	66 573.8			33
34	10 464.6	71 295.8				34
35	76 181.2					35

n	$x=85$	$x=86$	$x=87$	$x=88$	$x=89$	n
1	1.3605	1.4163	1.4922	1.5919	1.7215	1
2	1.9268	2.1133	2.3754	2.7404	3.2823	2
3	2.8751	3.3642	4.0891	5.2250	7.3012	3
4	4.5768	5.7913	7.7965	11.6228	20.7613	4
5	7.8788	11.0420	17.3429	33.0499	81.2262	5
6	15.0222	24.5624	49.3155	129.304	591.320	6
7	33.4161	69.8445	192.941	941.321		7
8	95.0205	273.258	1 404.59			8
9	371.756	1 989.30				9
10	2 706.35					10

Accumulated Pure Endowment

4% $1/A_{x\overline{n}|}=D_x/D_{x+n}$ American Experience

n	$x=65$	$x=66$	$x=67$	$x=68$	$x=69$	n
1	1.0835	1.0875	1.0920	1.0970	1.1026	1
2	1.1783	1.1876	1.1980	1.2096	1.2225	2
3	1.2868	1.3029	1.3209	1.3411	1.3636	3
4	1.4116	1.4365	1.4645	1.4960	1.5311	4
5	1.5565	1.5927	1.6337	1.6797	1.7311	5
6	1.7257	1.7767	1.8343	1.8991	1.9720	6
7	1.9250	1.9948	2.0739	2.1634	2.2646	7
8	2.1613	2.2554	2.3625	2.4843	2.6236	8
9	2.4437	2.5693	2.7130	2.8782	3.0694	9
10	2.7837	2.9505	3.1431	3.3673	3.6309	10
11	3.1968	3.4182	3.6772	3.9833	4.3491	11
12	3.7035	3.9991	4.3499	4.7711	5.2868	12
13	4.3329	4.7306	5.2102	5.7999	6.5347	13
14	5.1255	5.6663	6.3336	7.1689	8.2306	14
15	6.1393	6.8880	7.8286	9.0294	10.5882	15
16	7.4630	8.5139	9.8604	11.6157	13.9628	16
17	9.2246	10.7235	12.6847	15.3179	18.9959	17
18	11.6187	13.7951	16.7277	20.8394	26.9034	18
19	14.9467	18.1919	22.7573	29.5144	40.1440	19
20	19.7105	24.7493	32.2306	44.0399	63.9051	20
21	26.8153	35.0519	48.0931	70.1071	110.010	21
22	37.9780	52.3028	76.5592	120.687	209.753	22
23	56.6689	83.2606	131.794	230.109	466.584	23
24	90.2111	143.330	251.287	511.866	1 326.76	24
25	155.295	273.283	558.974	1 455.52	5 190.77	25
26	296.096	607.902	1 589.47	5 694.53	37 788.4	26
27	658.649	1 728.60	6 218.61	41 455.7		27
28	1 872.90	6 762.94	45 271.0			28
29	7 327.50	49 233.7				29
30	53 343.7					30

n	$x=80$	$x=81$	$x=82$	$x=83$	$x=84$	n
1	1.2156	1.2360	1.2595	1.2864	1.3187	1
2	1.5026	1.5568	1.6203	1.6964	1.7941	2
3	1.8925	2.0028	2.1367	2.3079	2.5409	3
4	2.4346	2.6411	2.9069	3.2687	3.7914	4
5	3.2105	3.5931	4.1170	4.8774	6.0355	5
6	4.3678	5.0888	6.1432	7.7643	10.3900	6
7	6.1860	7.5933	9.7794	13.3660	19.8102	7
8	9.2305	12.0877	16.8349	25.4844	44.0666	8
9	14.6940	20.8086	32.0984	56.6886	125.306	9
10	25.2952	39.6750	71.4012	161.197	490.243	10
11	48.2295	88.2549	203.033	630.664	3 568.93	11
12	107.284	250.957	794.342	4 591.18		12
13	305.067	981.840	5 782.75			13
14	1 193.54	7 147.72				14
15	8 688.87					15

Accumulated Pure Endowment

American Experience $1/A_{x\,\overline{n}|}^{1} = D_x/D_{x+n}$ 4%

n	$x=70$	$x=71$	$x=72$	$x=73$	$x=74$	n
1	1.1087	1.1155	1.1228	1.1307	1.1391	1
2	1.2368	1.2524	1.2695	1.2880	1.3082	2
3	1.3886	1.4161	1.4461	1.4791	1.5155	3
4	1.5701	1.6131	1.6607	1.7135	1.7731	4
5	1.7885	1.8525	1.9239	2.0047	2.0974	5
6	2.0539	2.1461	2.2509	2.3715	2.5123	6
7	2.3795	2.5108	2.6627	2.8405	3.0540	7
8	2.7838	2.9701	3.1893	3.4530	3.7748	8
9	3.2931	3.5576	3.8770	4.2680	4.7545	9
10	3.9444	4.3247	4.7921	5.3757	6.1164	10
11	4.7949	5.3455	6.0358	6.9155	8.0658	11
12	5.9267	6.7328	7.7646	9.1196	10.9732	12
13	7.4649	8.6613	10.2394	12.4068	15.5410	13
14	9.6030	11.4218	13.9302	17.5715	23.1896	14
15	12.6637	15.5389	19.7291	26.2194	36.9155	15
16	17.2285	22.0074	29.4388	41.7386	63.5487	16
17	24.4003	32.8384	46.8635	71.8516	121.166	17
18	36.4090	52.2753	80.6739	136.997	269.527	18
19	57.9594	89.9901	153.818	304.742	766.415	19
20	99.7750	171.581	342.160	866.550	2 998.50	20
21	190.238	381.672	972.950	3 390.27	21 828.9	21
22	423.173	1 085.31	3 806.55	24 680.9		22
23	1 203.31	4 246.12	27 711.4			23
24	4 707.82	30 911.5				24
25	34 272.6					25

n	$x=75$	$x=76$	$x=77$	$x=78$	$x=79$	n
1	1.1484	1.1585	1.1699	1.1829	1.1978	1
2	1.3304	1.3554	1.3840	1.4169	1.4561	2
3	1.5565	1.6034	1.6577	1.7224	1.7997	3
4	1.8412	1.9205	2.0151	2.1290	2.2668	4
5	2.2054	2.3346	2.4908	2.6815	2.9161	5
6	2.6809	2.8856	3.1372	3.4496	3.8456	6
7	3.3138	3.6345	4.0358	4.5490	5.2317	7
8	4.1738	4.6756	5.3221	6.1888	7.4096	8
9	5.3693	6.1658	7.2405	8.7650	11.0562	9
10	7.0806	8.3883	10.2545	13.0787	17.6003	10
11	9.6329	11.8801	15.3013	20.8200	30.2984	11
12	13.6428	17.7270	24.3581	35.8408	57.7688	12
13	20.3572	28.2195	41.9316	68.3365	128.504	13
14	32.4066	48.5790	79.9494	152.011	365.406	14
15	55.7867	92.6238	177.843	432.250	1 429.61	15
16	106.367	206.037	505.706	1 691.13	10 407.4	16
17	236.607	585.876	1 978.51	12 311.3		17
18	672.803	2 292.17	14 403.4			18
19	2 632.26	16 686.8				19
20	19 162.7					20

Forborne Life Annuity Due

4% $\quad {}_n u_x = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ American Experience

n	$x=15$	$x=16$	$x=17$	$x=18$	$x=19$	n
1	1.0480	1.0480	1.0481	1.0481	1.0481	1
2	2.1464	2.1465	2.1466	2.1467	2.1468	2
3	3.2976	3.2978	3.2980	3.2983	3.2986	3
4	4.5043	4.5047	4.5051	4.5056	4.5062	4
5	5.7692	5.7699	5.7707	5.7715	5.7724	5
6	7.0954	7.0964	7.0976	7.0988	7.1001	6
7	8.4859	8.4874	8.4891	8.4908	8.4926	7
8	9.9439	9.9461	9.9483	9.9507	9.9533	8
9	11.4730	11.4758	11.4788	11.4821	11.4855	9
10	13.0767	13.0804	13.0844	13.0886	13.0932	10
11	14.7588	14.7636	14.7688	14.7743	14.7802	11
12	16.5234	16.5296	16.5362	16.5433	16.5509	12
13	18.3750	18.3827	18.3911	18.4001	18.4096	13
14	20.3179	20.3277	20.3382	20.3493	20.3613	14
15	22.3572	22.3693	22.3822	22.3960	22.4111	15
16	24.4979	24.5127	24.5286	24.5458	24.5644	16
17	26.7455	26.7635	26.7832	26.8044	26.8270	17
18	29.1058	29.1280	29.1520	29.1776	29.2055	18
19	31.5854	31.6123	31.6411	31.6726	31.7066	19
20	34.1907	34.2230	34.2581	34.2962	34.3379	20
21	36.9287	36.9679	37.0102	37.0566	37.1071	21
22	39.8077	39.8546	39.9061	39.9620	40.0234	22
23	42.8355	42.8923	42.9541	43.0218	43.0956	23
24	46.0219	46.0899	46.1644	46.2455	46.3345	24
25	49.3762	49.4579	49.5468	49.6443	49.7511	25
26	52.9094	53.0066	53.1132	53.2299	53.3590	26
27	56.6326	56.7487	56.8759	57.0165	57.1715	27
28	60.5587	60.6970	60.8499	61.0184	61.2060	28
29	64.7016	64.8673	65.0500	65.2535	65.4801	29
30	69.0776	69.2754	69.4955	69.7406	70.0151	30
31	73.7035	73.9413	74.2059	74.5022	74.8365	31
32	78.6004	78.8856	79.2049	79.5651	79.9721	32
33	83.7900	84.1335	84.5208	84.9585	85.4536	33
34	89.2986	89.7146	90.1845	90.7159	91.3170	34
35	95.1577	95.6615	96.2312	96.8754	97.6038	35
36	101.4015	102.0113	102.7009	103.4805	104.3634	36
37	108.0689	108.8062	109.6396	110.5834	111.6515	37
38	115.2045	116.0946	117.1023	118.2426	119.5345	38
39	122.8594	123.9343	125.1506	126.5284	128.0886	39
40	131.0942	132.3903	133.8584	135.5209	137.4036	40
41	139.9775	141.5404	143.3103	145.3146	147.5881	41
42	149.5913	151.4738	153.6057	156.0241	158.7698	42
43	160.0292	162.2951	164.8654	167.7838	171.1020	43
44	171.4015	174.1314	177.2309	180.7553	184.7678	44
45	183.8422	187.1318	190.8726	195.1315	199.9866	45
46	197.5080	201.4758	205.9934	211.1437	217.0286	46
47	212.5879	217.3769	222.8369	229.0761	236.2294	47
48	229.3068	235.0917	241.7026	249.2826	257.9947	48
49	247.9347	254.9356	262.9631	272.1905	282.8306	49
50	268.8037	277.3008	287.0685	298.3329	311.3760	50

Forborne Life Annuity Due

American Experience $\qquad {}_{n}u_{x} = (\mathbb{N}_{x} - \mathbb{N}_{x+n}) / \mathbf{D}_{x+n} \qquad$ 4%

n	$x=20$	$x=21$	$x=22$	$x=23$	$x=24$	n
1	1.0482	1.0482	1.0483	1.0483	1.0484	1
2	2.1470	2.1471	2.1473	2.1475	2.1477	2
3	3.2989	3.2993	3.2996	3.3000	3.3004	3
4	4.5068	4.5074	4.5080	4.5086	4.5094	4
5	5.7733	5.7742	5.7752	5.7763	5.7775	5
6	7.1015	7.1029	7.1045	7.1061	7.1079	6
7	8.4946	8.4967	8.4989	8.5013	8.5039	7
8	9.9560	9.9589	9.9620	9.9653	9.9689	8
9	11.4892	11.4931	11.4974	11.5018	11.5067	9
10	13.0981	13.1033	13.1088	13.1148	13.1213	10
11	14.7866	14.7933	14.8006	14.8085	14.8170	11
12	16.5590	16.5676	16.5771	16.5873	16.5982	12
13	18.4199	18.4310	18.4431	18.4559	18.4700	13
14	20.3743	20.3883	20.4033	20.4197	20.4375	14
15	22.4273	22.4446	22.4636	22.4841	22.5068	15
16	24.5843	24.6061	24.6296	24.6555	24.6837	16
17	26.8518	26.8785	26.9079	26.9399	26.9752	17
18	29.2358	29.2690	29.3052	29.3450	29.3883	18
19	31.7439	31.7845	31.8291	31.8778	31.9313	19
20	34.3832	34.4331	34.4874	34.5471	34.6125	20
21	37.1626	37.2230	37.2892	37.3619	37.4425	21
22	40.0903	40.1636	40.2441	40.3331	40.4315	22
23	43.1765	43.2652	43.3634	43.4717	43.5928	23
24	46.4319	46.5398	46.6588	46.7916	46.9398	24
25	49.8692	49.9995	50.1449	50.3070	50.4890	25
26	53.5012	53.6599	53.8368	54.0352	54.2597	26
27	57.3443	57.5368	57.7527	57.9967	58.2731	27
28	61.4151	61.6494	61.9142	62.2140	62.5536	28
29	65.7340	66.0207	66.3451	66.7126	67.1288	29
30	70.3250	70.6755	71.0724	71.5217	72.0304	30
31	75.2146	75.6424	76.1268	76.6749	77.2963	31
32	80.4327	80.9539	81.5437	82.2121	82.9690	32
33	86.0137	86.6473	87.3652	88.1781	89.0995	33
34	91.9968	92.7669	93.6388	94.6269	95.7462	34
35	98.4289	99.3629	100.4212	101.6201	102.9779	35
36	105.3628	106.4951	107.7775	109.2301	110.8779	36
37	112.8615	114.2320	115.7842	117.5450	119.5441	37
38	120.9975	122.6544	124.5341	126.6680	129.0941	38
39	129.8557	131.8602	134.1360	136.7233	139.6683	39
40	139.5393	141.9641	144.7210	147.8590	151.4352	40
41	150.1695	153.1044	156.4452	160.2529	164.6020	41
42	161.8917	165.4456	169.4963	174.1234	179.4262	42
43	174.8796	179.1855	184.1046	189.7425	196.2194	43
44	189.3416	194.5672	200.5569	207.4387	215.3700	44
45	205.5339	211.8929	219.1997	227.6218	237.3685	45
46	223.7751	231.5280	240.4653	250.8093	262.8215	46
47	244.4503	253.9282	264.8991	277.6411	292.5077	47
48	268.0397	279.6686	293.1764	308.9387	327.4018	48
49	295.1497	309.4610	326.1632	345.7303	368.7249	49
50	326.5302	344.2185	364.9438	389.3039	418.0308	50

Forborne Life Annuity Due

4% $\qquad {}_{n}u_{x} = (\mathbb{N}_{x} - \mathbb{N}_{x+n}) / \mathbf{D}_{x+n}$ $\qquad$ American Experience

n	$x=25$	$x=26$	$x=27$	$x=28$	$x=29$	n
1	1.0485	1.0485	1.0486	1.0487	1.0488	1
2	2.1479	2.1481	2.1483	2.1485	2.1488	2
3	3.3008	3.3013	3.3018	3.3023	3.3029	3
4	4.5101	4.5110	4.5119	4.5128	4.5138	4
5	5.7788	5.7801	5.7815	5.7831	5.7848	5
6	7.1098	7.1119	7.1140	7.1165	7.1191	6
7	8.5062	8.5096	8.5128	8.5163	8.5201	7
8	9.9727	9.9769	9.9815	9.9863	9.9917	8
9	11.5120	11.5177	11.5238	11.5306	11.5379	9
10	13.1284	13.1359	13.1442	13.1533	13.1633	10
11	14.8262	14.8362	14.8471	14.8592	14.8724	11
12	16.6102	16.6232	16.6375	16.6532	16.6705	12
13	18.4853	18.5022	18.5206	18.5409	18.5631	13
14	20.4572	20.4786	20.5022	20.5280	20.5564	14
15	22.5314	22.5587	22.5884	22.6210	22.6569	15
16	24.7148	24.7487	24.7860	24.8270	24.8726	16
17	27.0137	27.0560	27.1025	27.1541	27.2112	17
18	29.4360	29.4884	29.5465	29.6108	29.6829	18
19	31.9899	32.0551	32.1270	32.2076	32.2978	19
20	34.6851	34.7653	34.8551	34.9554	35.0683	20
21	37.5315	37.6310	37.7422	37.8673	38.0092	21
22	40.5415	40.6643	40.8023	40.9589	41.1365	22
23	43.7279	43.8797	44.0518	44.2470	44.4686	23
24	47.1063	47.2948	47.5086	47.7512	48.0264	24
25	50.6949	50.9284	51.1933	51.4937	51.8341	25
26	54.5140	54.8024	55.1294	55.4999	55.9202	26
27	58.5976	58.9404	59.3438	59.8001	60.3172	27
28	62.9385	63.3743	63.8686	64.4287	65.0636	28
29	67.6001	68.1346	68.7400	69.4263	70.2040	29
30	72.6072	73.2605	74.0011	74.8401	75.7904	30
31	78.0000	78.7978	79.7016	80.7252	81.8863	31
32	83.8269	84.7989	85.8998	87.1485	88.5659	32
33	90.1432	91.3255	92.6665	94.1887	95.9187	33
34	97.0140	98.4522	100.0848	101.9403	104.0513	34
35	104.5183	106.2669	108.2546	110.5161	113.0921	35
36	112.7487	114.8752	117.2951	120.0517	123.1984	36
37	121.8167	124.4030	127.3495	130.7136	134.5664	37
38	131.8553	135.0015	138.5939	142.7088	147.4329	38
39	143.0242	146.8566	151.2470	156.2881	162.0935	39
40	155.5196	160.1995	165.5736	171.7637	178.9215	40
41	169.5857	175.3097	181.9038	189.5302	198.3788	41
42	185.5175	192.5359	200.6543	210.0757	221.0579	42
43	203.6832	212.3183	222.3410	234.0267	247.7010	43
44	224.5474	235.2015	247.6257	262.1674	279.2380	44
45	248.6852	261.8846	277.3368	295.4807	316.8521	45
46	276.8344	293.2423	312.5127	335.2169	362.0769	46
47	309.9185	330.3711	354.4742	382.9969	416.9475	47
48	349.2949	374.6659	404.9336	440.9715	484.2046	48
49	395.8360	427.9347	466.1630	512.0372	567.6595	49
50	452.0503	492.5768	541.2222	600.2218	672.6843	50

Forborne Life Annuity Due

American Experience

$${}_n u_x = (\mathbb{N}_x - \mathbb{N}_{x+n}) / \mathbf{D}_{x+n}$$

4%

n	$x=30$	$x=31$	$x=32$	$x=33$	$x=34$	n
1	1.0488	1.0489	1.0490	1.0491	1.0493	1
2	2.1491	2.1494	2.1497	2.1501	2.1505	2
3	3.3035	3.3042	3.3049	3.3057	3.3065	3
4	4.5150	4.5162	4.5175	4.5190	4.5206	4
5	5.7867	5.7886	5.7908	5.7932	5.7959	5
6	7.1219	7.1250	7.1283	7.1321	7.1361	6
7	8.5242	8.5287	8.5337	8.5392	8.5453	7
8	9.9975	10.0040	10.0110	10.0189	10.0275	8
9	11.5460	11.5549	11.5648	11.5755	11.5874	9
10	13.1742	13.1862	13.1994	13.2140	13.2300	10
11	14.8869	14.9028	14.9204	14.9397	14.9612	11
12	16.6894	16.7103	16.7332	16.7587	16.7870	12
13	18.5876	18.6145	18.6444	18.6776	18.7149	13
14	20.5876	20.6223	20.6608	20.7041	20.7525	14
15	22.6969	22.7411	22.7908	22.8464	22.9092	15
16	24.9230	24.9796	25.0429	25.1144	25.1958	16
17	27.2752	27.3469	27.4277	27.5197	27.6243	17
18	29.7634	29.8542	29.9575	30.0749	30.2086	18
19	32.3993	32.5146	32.6457	32.7948	32.9642	19
20	35.1965	35.3422	35.5078	35.6959	35.9093	20
21	38.1704	38.3536	38.5615	38.7974	39.0652	21
22	41.3383	41.5674	41.8272	42.1220	42.4563	22
23	44.7200	45.0052	45.3288	45.6955	46.1114	23
24	48.3384	48.6924	49.0936	49.5486	50.0640	24
25	52.2203	52.6580	53.1544	53.7166	54.3532	25
26	56.3965	56.9365	57.5484	58.2411	59.0265	26
27	60.9034	61.5675	62.3196	63.1724	64.1396	27
28	65.7830	66.5977	67.5215	68.5696	69.7599	28
29	71.0847	72.0835	73.2168	74.5041	75.9674	29
30	76.8683	78.0914	79.4809	81.0608	82.8586	30
31	83.2040	84.7012	86.4039	88.3418	90.5519	31
32	90.1765	92.0083	94.0938	96.4727	99.1945	32
33	97.8866	100.1273	102.6838	105.6096	108.9648	33
34	106.4554	109.1989	112.3392	115.9414	120.0851	34
35	116.0321	119.3982	123.2601	127.7038	132.8363	35
36	126.8018	130.9369	135.6961	141.1944	147.5659	36
37	138.9886	144.0794	149.9623	156.7814	164.7199	37
38	152.8721	159.1592	166.4487	174.9375	184.8572	38
39	168.8052	176.5891	185.6560	196.2547	208.6778	39
40	187.2247	196.8990	208.2110	221.4748	237.0730	40
41	208.6910	220.7522	234.8991	251.5419	271.1976	41
42	233.9060	248.9803	266.7202	287.6796	312.5842	42
43	263.7492	282.6411	304.9698	331.5117	363.2966	43
44	299.3395	323.1059	351.3673	385.2248	426.2046	44
45	342.1277	372.1943	408.2280	451.8591	505.3531	45
46	394.0384	432.3567	478.7715	535.7006	606.5042	46
47	457.6638	507.0006	567.5360	642.8541	738.4912	47
48	536.6083	600.9290	680.9862	782.6787	914.0420	48
49	635.9529	720.9840	829.0327	968.6596	1 152.525	49
50	762.9353	877.6546	1 025.955	1 221.318	1 483.930	50

Forborne Life Annuity Due

4% $\qquad {}_{n}u_{x} = (\mathbb{N}_{x} - \mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ $\qquad$ American Experience

n	$x=35$	$x=36$	$x=37$	$x=38$	$x=39$	n
1	1.0494	1.0495	1.0497	1.0499	1.0501	1
2	2.1509	2.1514	2.1519	2.1525	2.1532	2
3	3.3075	3.3086	3.3097	3.3110	3.3124	3
4	4.5223	4.5243	4.5265	4.5288	4.5314	4
5	5.7988	5.8021	5.8056	5.8095	5.8138	5
6	7.1407	7.1457	7.1512	7.1572	7.1639	6
7	8.5519	8.5593	8.5673	8.5763	8.5863	7
8	10.0369	10.0473	10.0589	10.0718	10.0864	8
9	11.6004	11.6150	11.6311	11.6494	11.6699	9
10	13.2479	13.2677	13.2900	13.3151	13.3436	10
11	14.9851	15.0119	15.0421	15.0763	15.1155	11
12	16.8189	16.8547	16.8952	16.9414	16.9943	12
13	18.7568	18.8041	18.8581	18.9198	18.9902	13
14	20.8073	20.8698	20.9410	21.0223	21.1147	14
15	22.9808	23.0624	23.1554	23.2611	23.3812	15
16	25.2885	25.3941	25.5142	25.6505	25.8053	16
17	27.7535	27.8789	28.0327	28.2072	28.4051	17
18	30.3604	30.5328	30.7285	30.9503	31.2017	18
19	33.1564	33.3747	33.6220	33.9025	34.2199	19
20	36.1515	36.4261	36.7375	37.0899	37.4885	20
21	39.3687	39.7129	40.1026	40.5434	41.0426	21
22	42.8352	43.2644	43.7501	44.3002	44.9235	22
23	46.5825	47.1156	47.7197	48.4043	49.1808	23
24	50.6474	51.3086	52.0581	52.9085	53.8738	24
25	55.0748	55.8929	56.8215	57.8759	59.0739	25
26	59.9172	60.9283	62.0768	63.3823	64.8687	26
27	65.2379	66.4849	67.9048	69.5210	71.3674	27
28	71.1127	72.6513	74.4045	76.4080	78.7019	28
29	77.6323	79.5298	81.6991	84.1837	87.0371	29
30	84.9084	87.2524	89.9380	93.0234	96.5809	30
31	93.0799	95.9773	99.3073	103.1483	107.5913	31
32	102.3150	105.9024	110.0420	114.8323	120.3988	32
33	112.8233	117.2772	122.4332	128.4272	135.4178	33
34	124.8697	130.4106	136.8545	144.3733	153.1680	34
35	138.7820	145.6994	153.7739	163.2231	174.3106	35
36	154.9810	163.6401	173.7779	185.6795	199.7027	36
37	173.9936	184.8556	197.6133	212.6534	230.4814	37
38	196.4804	210.1383	226.2476	245.3537	268.1782	38
39	223.2819	240.5153	260.9649	285.4080	314.9218	39
40	255.4876	277.3495	303.4941	335.0797	373.7133	40
41	294.5433	322.4762	356.2393	397.5587	448.8276	41
42	342.3957	378.4472	422.5891	477.3893	546.8171	42
43	401.7518	448.8594	507.3704	581.5372	677.1249	43
44	476.4271	538.8367	617.9827	720.0404	854.1205	44
45	571.8570	656.2336	765.0885	908.1739	1 100.053	45
46	696.3736	812.3682	964.9135	1 169.589	1 451.984	46
47	861.9829	1 024.4640	1 242.580	1 543.683	1 976.724	47
48	1 086.955	1 319.187	1 639.939	2 101.476	2 801.007	48
49	1 399.578	1 740.962	2 232.428	2 977.691	4 181.023	49
50	1 846.976	2 369.866	3 163.155	4 444.662	6 657.350	50

Forborne Life Annuity Due

American Experience $\quad {}_{n}u_{x} = (\mathbb{N}_{x} - \mathbb{N}_{x+n})/\mathbb{D}_{x+n}$ $\quad 4\%$

n	$x=40$	$x=41$	$x=42$	$x=43$	$x=44$	n
1	1.0503	1.0505	1.0508	1.0511	1.0514	1
2	2.1539	2.1546	2.1555	2.1564	2.1575	2
3	3.3140	3.3157	3.3176	3.3198	3.3222	3
4	4.5342	4.5374	4.5410	4.5451	4.5497	4
5	5.8186	5.8240	5.8301	5.8370	5.8448	5
6	7.1714	7.1799	7.1895	7.2005	7.2132	6
7	8.5977	8.6105	8.6250	8.6418	8.6610	7
8	10.1028	10.1215	10.1429	10.1676	10.1957	8
9	11.6932	11.7199	11.7506	11.7857	11.8256	9
10	13.3762	13.4136	13.4563	13.5049	13.5601	10
11	15.1602	15.2113	15.2695	15.3356	15.4105	11
12	17.0546	17.1233	17.2013	17.2898	17.3899	12
13	19.0703	19.1612	19.2644	19.3813	19.5135	13
14	21.2197	21.3388	21.4738	21.6266	21.7992	14
15	23.5175	23.6720	23.8469	24.0447	24.2677	15
16	25.9807	26.1795	26.4042	26.6578	26.9445	16
17	28.6293	28.8829	29.1693	29.4932	29.8593	17
18	31.4862	31.8077	32.1714	32.5827	33.0481	18
19	34.5787	34.9848	35.4444	35.9647	36.5539	19
20	37.9397	38.4506	39.0293	39.6851	40.4283	20
21	41.6080	42.2488	42.9753	43.7992	44.7349	21
22	45.6301	46.4316	47.3412	48.3749	49.5528	22
23	50.0618	51.0621	52.1996	53.4966	54.9779	23
24	54.9702	56.2175	57.6406	59.2668	61.1296	24
25	60.4375	61.9940	63.7736	65.8133	68.1592	25
26	66.5662	68.5080	70.7349	73.2975	76.2539	26
27	73.4805	75.9050	78.6966	81.9193	85.6540	27
28	81.3351	84.3685	87.8723	91.9354	96.6608	28
29	90.3256	94.1260	98.5357	103.6675	109.6521	29
30	100.6942	105.4694	111.0300	117.5192	125.1092	30
31	112.7518	118.7644	125.7857	134.0042	143.6556	31
32	126.8878	134.4698	143.3507	153.7882	166.1185	32
33	143.5906	153.1694	164.4352	177.7545	193.6118	33
34	163.4819	175.6200	189.9812	207.0924	227.6838	34
35	187.3673	202.8255	221.2574	243.4552	270.5169	35
36	216.3158	236.1380	260.0275	289.1734	325.2200	36
37	251.7668	277.4368	308.7772	347.5665	396.5579	37
38	295.7216	329.3712	371.0477	423.7227	491.3981	38
39	351.0008	395.7150	452.2668	524.9750	620.1916	39
40	421.6227	482.2527	560.2567	662.4828	799.1194	40
41	513.7465	597.3205	706.9212	853.5240	1 055.137	41
42	636.2482	753.6043	910.6910	1 126.881	1 436.829	42
43	802.6350	970.7456	1 202.269	1 534.435	2 036.366	43
44	1 033.8201	1 281.464	1 636.996	2 174.603	3 040.062	44
45	1 364.642	1 744.738	2 319.858	3 246.332	4 841.057	45
46	1 857.898	2 472.451	3 463.075	5 169.418	8 335.429	46
47	2 632.717	3 690.767	5 514.451	8 900.691	15 894.78	47
48	3 929.908	5 876.913	9 494.653	16 972.55	35 359.29	48
49	6 257.601	10 118.62	18 105.03	37 756.72	100 548.8	49
50	10 773.96	19 294.73	40 275.87	107 366.0	393 388.8	50

4% ${}_{n}u_{x}=(\mathbb{N}_{x}-\mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ American Experience

n	$x=45$	$x=46$	$x=47$	$x=48$	$x=49$	n
1	1.0517	1.0522	1.0526	1.0532	1.0538	1
2	2.1588	2.1602	2.1618	2.1637	2.1658	2
3	3.3250	3.3282	3.3319	3.3362	3.3410	3
4	4.5550	4.5611	4.5682	4.5762	4.5852	4
5	5.8539	5.8644	5.8763	5.8899	5.9051	5
6	7.2277	7.2443	7.2631	7.2844	7.3084	6
7	8.6831	8.7081	8.7364	8.7683	8.8043	7
8	10.2278	10.2640	10.3051	10.3513	10.4033	8
9	11.8708	11.9220	11.9798	12.0449	12.1180	9
10	13.6226	13.6932	13.7728	13.8624	13.9629	10
11	15.4952	15.5909	15.6987	15.8198	15.9559	11
12	17.5031	17.6307	17.7743	17.9359	18.1178	12
13	19.6627	19.8308	20.0202	20.2335	20.4737	13
14	21.9937	22.2132	22.4605	22.7395	23.0541	14
15	24.5195	24.8037	25.1245	25.4866	25.8952	15
16	27.2682	27.6340	28.0472	28.5139	29.0419	16
17	30.2732	30.7413	31.2705	31.8696	32.5498	17
18	33.5748	34.1708	34.8461	35.6135	36.4865	18
19	37.2212	37.9780	38.8385	39.8184	40.9364	19
20	41.2718	42.2318	43.3257	44.5750	46.0063	20
21	45.8006	47.0160	48.4051	49.9651	51.8284	21
22	50.8972	52.4350	54.1998	56.2296	58.5727	22
23	56.6734	58.6208	60.8625	63.4524	66.4521	23
24	63.2706	65.7370	68.5890	71.8954	75.7342	24
25	70.8638	73.9936	77.6251	81.8459	86.7598	25
26	79.6778	83.6538	88.2792	93.6700	99.9704	26
27	89.9944	95.0481	100.9438	107.8420	115.9517	27
28	102.1672	108.5971	116.1279	124.9912	135.4920	28
29	116.6464	124.8460	134.5065	145.9645	159.6872	29
30	134.0152	144.5181	156.9883	171.9394	190.0817	30
31	155.0478	168.5871	184.8365	204.5752	228.8755	31
32	180.7860	198.4064	219.8316	246.2357	279.4401	32
33	212.6784	235.8838	264.5097	300.5435	346.6357	33
34	252.7666	283.7368	322.7575	372.7203	437.8586	34
35	303.9588	346.1304	400.1778	470.7130	564.5608	35
36	370.7125	429.0676	505.2966	606.8257	745.8185	36
37	459.4522	541.6843	651.3151	801.5543	1 016.015	37
38	579.9547	698.1253	860.2235	1 091.841	1 440.376	38
39	747.3574	921.9532	1 171.658	1 547.767	2 150.754	39
40	986.8768	1 255.639	1 660.810	2 310.997	3 425.370	40
41	1 343.965	1 779.750	2 479.675	3 680.462	5 898.375	41
42	1 904.844	2 657.152	3 948.979	6 337.506	11 248.13	42
43	2 843.811	4 231.503	6 799.749	12 085.41	25 023.08	43
44	4 528.646	7 286.104	12 966.75	26 885.55	71 157.26	44
45	7 797.625	13 894.07	28 846.05	76 453.29	278 398.0	45
46	14 869.37	30 908.81	82 028.07	299 118.0	2 026 723.	46
47	33 078.31	87 893.66	320 928.7	2 177 563.		47
48	94 062.73	343 877.1	2 336 343.			48
49	368 012.8	2 503 406.				49
50	2 679 112.					50

Forborne Life Annuity Due

American Experience $\quad {}_{n}u_x = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbb{D}_{x+n}$ $\quad 4\%$

n	$x=50$	$x=51$	$x=52$	$x=53$	$x=54$	n
1	1.0545	1.0553	1.0563	1.0573	1.0584	1
2	2.1682	2.1710	2.1740	2.1774	2.1813	2
3	3.3465	3.3526	3.3594	3.3671	3.3756	3
4	4.5954	4.6068	4.6196	4.6339	4.6499	4
5	5.9222	5.9414	5.9629	5.9870	6.0138	5
6	7.3353	7.3655	7.3993	7.4370	7.4792	6
7	8.8446	8.8898	8.9403	8.9969	9.0602	7
8	10.4616	10.5269	10.6000	10.6819	10.7738	8
9	12.1998	12.2918	12.3949	12.5105	12.6403	9
10	14.0758	14.2026	14.3449	14.5048	14.6843	10
11	16.1089	16.2809	16.4742	16.6916	16.9362	11
12	18.3224	18.5526	18.8117	19.1036	19.4335	12
13	20.7444	21.0492	21.3930	21.7819	22.2221	13
14	23.4087	23.8091	24.2624	24.7760	25.3593	14
15	26.3569	26.8801	27.4736	28.1483	28.9174	15
16	29.6407	30.3206	31.0941	31.9771	32.9865	16
17	33.3227	34.2031	35.2088	36.3600	37.6815	17
18	37.4815	38.6195	39.9233	41.4223	43.1489	18
19	42.2161	43.6838	45.3731	47.3212	49.5698	19
20	47.6494	49.5425	51.7292	54.2544	57.1769	20
21	53.9393	56.3791	59.2025	62.4735	66.2714	21
22	61.2836	64.4244	68.0681	72.3050	77.2526	22
23	69.9311	73.9724	78.6780	84.1815	90.6580	23
24	80.1986	85.4037	91.5000	98.6853	107.2342	24
25	92.4963	99.2237	107.1641	116.6256	128.0335	25
26	107.3685	116.1121	126.5453	139.1428	154.5549	26
27	125.5482	137.0140	150.8771	167.8615	189.0949	27
28	148.0535	163.2608	181.9167	205.2706	234.9652	28
29	176.3199	196.7498	222.3563	254.9591	297.2059	29
30	212.3918	240.3877	276.0778	322.3889	383.6210	30
31	259.4023	298.3653	348.9885	416.0171	507.2089	31
32	321.8681	377.0603	450.2357	549.9304	691.3967	32
33	406.6630	486.3481	595.0553	749.5176	980.6263	33
34	524.4299	642.6776	810.9081	1 062.942	1 464.737	34
35	692.8969	875.6962	1 149.888	1 587.564	2 333.302	35
36	944.0174	1 241.646	1 717.300	2 528.830	4 018.417	36
37	1 338.407	1 854.217	2 735.357	4 355.012	7 663.684	37
38	1 998.601	2 953.315	4 710.542	8 305.457	17 049.67	38
39	3 183.159	5 085.748	8 983.333	18 477.26	48 484.45	39
40	5 481.416	9 698.729	19 985.15	52 543.87	189 693.4	40
41	10 453.13	21 576.51	56 831.66	205 575.4	1 380 960.	41
42	23 254.64	61 356.75	222 350.8	1 496 580.		42
43	66 128.62	240 054.7	1 618 704.			43
44	258 724.0	1 747 587.				44
45	1 883 498.					45

Forborne Life Annuity Due

4% $\quad {}_n u_x = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ $\quad$ American Experience

n	$x=55$	$x=56$	$x=57$	$x=58$	$x=59$	n
1	1.0597	1.0611	1.0627	1.0644	1.0664	1
2	2.1855	2.1903	2.1955	2.2014	2.2080	2
3	3.3852	3.3958	3.4076	3.4208	3.4355	3
4	4.6676	4.6875	4.7096	4.7343	4.7619	4
5	6.0437	6.0772	6.1146	6.1564	6.2029	5
6	7.5264	7.5792	7.6382	7.7041	7.7778	6
7	9.1312	9.2105	9.2994	9.3988	9.5106	7
8	10.8768	10.9921	11.1214	11.2669	11.4306	8
9	12.7858	12.9492	13.1333	13.3407	13.5747	9
10	14.8861	15.1137	15.3704	15.6605	15.9891	10
11	17.2123	17.5242	17.8770	18.2774	18.7319	11
12	19.8065	20.2290	20.7090	21.2549	21.8775	12
13	22.7213	23.2892	23.9360	24.6748	25.5193	13
14	26.0235	26.7810	27.6474	28.6397	29.7755	14
15	29.7957	30.8017	31.9556	33.2790	34.7965	15
16	34.1442	35.4741	37.0021	38.7577	40.7771	16
17	39.2026	40.9526	42.9672	45.2894	47.9756	17
18	45.1389	47.4339	50.0846	53.1575	56.7397	18
19	52.1671	55.1728	58.6642	62.7431	67.5519	19
20	60.5646	64.5073	69.1227	74.5755	81.0921	20
21	70.6991	75.8922	82.0393	89.4005	98.3290	21
22	83.0656	89.9591	98.2296	108.2807	120.7458	22
23	98.3515	107.5982	118.8562	132.8433	150.4829	23
24	117.5259	130.0777	145.6990	165.4359	190.7977	24
25	141.9690	159.3401	181.3260	209.6315	246.7343	25
26	173.7953	198.1870	229.6456	270.9626	326.6932	26
27	216.0543	250.8826	296.7094	358.6436	445.8127	27
28	273.3870	324.0293	392.5965	489.2800	632.8111	28
29	352.9796	428.6239	535.4714	694.3728	945.7431	29
30	466.8014	584.4852	759.7927	1 037.603	1 507.117	30
31	636.4240	829.2098	1 135.219	1 653.348	2 596.171	31
32	902.7697	1 238.800	1 808.744	2 847.902	4 951.935	32
33	1 348.563	1 973.634	3 115.410	5 431.902	11 017.53	33
34	2 148.365	3 399.262	5 941.950	12 085.19	31 331.76	34
35	3 700.055	6 483.162	13 219.76	34 367.71	122 585.6	35
36	7 056.673	14 423.66	37 593.93	134 463.4	892 420.9	36
37	15 699.40	41 017.27	147 085.5	978 890.2		37
38	44 644.91	160 478.9	1070 779.			38
39	174 671.7	1 168 282.				39
40	1 271 603.					40

n	$x=90$	$x=91$	$x=92$	$x=93$	$x=94$	n
1	1.9067	2.2244	2.8436	3.9124	7.2799	1
2	6.4657	9.1689	15.0374	35.7617		2
3	21.2292	39.7845	116.7512			3
4	86.9688	296.9078				4
5	640.4063					5

Forborne Life Annuity Due

American Experience $\qquad {}_{n}u_x = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_{x+n} \qquad$ 4%

n	$x=60$	$x=61$	$x=62$	$x=63$	$x=64$	n
1	1.0685	1.0709	1.0736	1.0765	1.0798	1
2	2.2152	2.2233	2.2323	2.2423	2.2534	2
3	3.4519	3.4701	3.4903	3.5129	3.5382	3
4	4.7926	4.8268	4.8651	4.9080	4.9559	4
5	6.2550	6.3133	6.3785	6.4517	6.5339	5
6	7.8606	7.9534	8.0576	8.1749	8.3068	6
7	9.6362	9.7774	9.9366	10.1161	10.3187	7
8	11.6151	11.8233	12.0586	12.3248	12.6258	8
9	13.8393	14.1388	14.4785	14.8635	15.2988	9
10	16.3616	16.7849	17.2659	17.8113	18.4283	10
11	19.2494	19.8387	20.5087	21.2691	22.1315	11
12	22.5878	23.3974	24.3189	25.3675	26.5636	12
13	26.4841	27.5850	28.8417	30.2797	31.9333	13
14	31.0749	32.5622	34.2694	36.2385	38.5299	14
15	36.5377	38.5419	40.8606	43.5668	46.7611	15
16	43.1073	45.8105	48.9743	52.7194	57.2077	16
17	51.0996	54.7654	59.1161	64.3445	70.7582	17
18	60.9533	65.9666	72.0064	79.4337	88.6961	18
19	73.2865	80.2118	88.7477	99.4194	112.9752	19
20	88.9795	98.7223	110.9319	126.4816	146.6211	20
21	109.3804	123.2610	140.9819	163.9961		21
22	136.4348	156.5108	182.6498	217.5843	266.2028	22
23	173.1037	202.6266	242.1833	297.3747	378.4334	23
24	223.9722	268.5272	330.8407	422.5815	566.1727	24
25	296.6762	366.6804	459.9787	632.0484	902.8805	25
26	404.9759	520.7377	702.7722	1 007.748	1 555.998	26
27	574.9748	778.5124	1 120.333	1 736.524	2 968.674	27
28	859.4425	1 240.903	1 930.335	3 312.876	6 605.877	28
29	1 369.736	2 137.893	3 682.409	7 371.534	18 787.00	29
30	2 359.673	4 078.153	8 193.540	20 964.18	73 505.73	30
31	4 501.013	9 073.850	23 301.60	82 023.71	535 123.3	31
32	10 014.48	25 804.80	91 168.56	597 133.5		32
33	28 479.54	100 962.0	663 707.3			33
34	111 426.6	735 003.1				34
35	811 184.3					35

n	$x=85$	$x=86$	$x=87$	$x=88$	$x=89$	n
1	1.3605	1.4163	1.4922	1.5919	1.7215	1
2	3.3431	3.6055	3.9673	4.4619	5.1889	2
3	6.4805	7.3314	8.5509	10.4139	13.7669	3
4	11.9082	14.3422	18.2105	25.3897	41.9905	4
5	22.2210	29.2525	42.7326	75.0404	168.1950	5
6	44.2747	67.2950	124.3559	297.4987	1 231.727	6
7	100.7111	194.2004	490.4397	2 173.048		7
8	289.2209	763.6977	3 577.643			8
9	1 135.454	5 566.940				9
10	8 273.294					10

Forborne Life Annuity Due

4% $\qquad {}_{n}u_x = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ $\qquad$ American Experience

n	$x=65$	$x=66$	$x=67$	$x=68$	$x=69$	n
1	1.0835	1.0875	1.0920	1.0970	1.1026	1
2	2.2659	2.2797	2.2951	2.3122	2.3312	2
3	3.5664	3.5979	3.6331	3.6723	3.7159	3
4	5.0096	5.0696	5.1369	5.2119	5.2949	4
5	6.6261	6.7296	6.8455	6.9746	7.1174	5
6	8.4553	8.6222	8.8089	9.0165	9.2468	6
7	10.5472	10.8037	11.0904	11.4102	11.7672	7
8	12.9650	13.3459	13.7726	14.2515	14.7911	8
9	15.7897	16.3419	16.9645	17.6693	18.4747	9
10	19.1256	19.9150	20.8124	21.8420	23.0372	10
11	23.1117	24.2306	25.5192	27.0204	28.7914	11
12	27.9341	29.5182	31.3703	33.5626	36.2149	12
13	33.8512	36.1009	38.7728	42.0148	45.9992	13
14	41.2265	44.4391	48.3484	53.1681	59.1970	14
15	50.5784	55.2364	60.9967	68.2265	77.4393	15
16	62.6995	69.5106	78.0869	89.0550	103.4397	16
17	79.7352	88.8104	101.7397	118.7576	142.0858	17
18	100.4291	115.5348	135.4853	162.9252	202.6493	18
19	130.4814	153.6772	185.6825	232.1637	303.8760	19
20	173.3877	210.4318	264.3943	347.9159	485.3311	20
21	237.2471	299.4462	396.0090	555.4382	837.2018	21
22	337.4242	448.3117	631.9974	957.8886	1 598.170	22
23	504.9807	715.2580	1 089.682	1 828.280	3 557.266	23
24	805.4691	1 233.013	2 079.566	4 069.131	10 118.11	24
25	1 388.308	2 352.849	4 628.105	11 573.292	39 589.79	25
26	2 648.945	5 236.008	13 163.10	45 284.32	288 217.9	26
27	5 894.657	14 891.70	51 502.93	329 673.6		27
28	16.764.61	58 265.87	374 944.6			28
29	65 593.37	424 178.3				29
30	477 522.0					30

n	$x=80$	$x=81$	$x=82$	$x=83$	$x=84$	n
1	1.2156	1.2360	1.2595	1.2864	1.3187	1
2	2.7386	2.8164	2.9067	3.0152	3.1545	2
3	4.7089	4.9095	5.1519	5.4625	5.8840	3
4	7.3441	7.7930	8.3694	9.1527	10.2719	4
5	11.0035	11.9625	13.2697	15.1493	17.9437	5
6	16.3303	18.3585	21.2925	25.7080	32.6110	6
7	24.5445	28.8858	35.4874	45.9769	64.0849	7
8	38.1163	47.5751	62.8118	89.5693	144.7778	8
9	62.2692	83.6204	121.6677	201.4664	414.5267	9
10	108.9156	161.3428	272.8676	575.7238	1 625.697	10
11	209.5723	361.1225	778.7568	2 256.361	11 842.23	11
12	468.4065	1 029.714	3 050.703	16 433.41		12
13	1 334.782	4 032.542	22 216.16			13
14	5 226.081	29 363.88				14
15	38 052.75					15

Forborne Life Annuity Due

American Experience $\quad {}_{n}u_{x} = (\mathbb{N}_{x} - \mathbb{N}_{x+n})/\mathbf{D}_{x+n}$ $\quad 4\%$

n	$x=70$	$x=71$	$x=72$	$x=73$	$x=74$	n
1	1.1087	1.1155	1.1228	1.1307	1.1391	1
2	2.3522	2.3752	2.4001	2.4271	2.4565	2
3	3.7639	3.8162	3.8732	3.9356	4.0045	3
4	5.3863	5.4863	5.5963	5.7180	5.8549	4
5	7.2748	7.4487	7.6420	7.8597	8.1089	5
6	9.5026	9.7881	10.1106	10.4804	10.9106	6
7	12.1676	12.6214	13.1430	13.7511	14.4787	7
8	15.4052	16.1132	16.9404	17.9316	19.1323	8
9	19.4062	20.4980	21.8086	23.4003	25.3572	9
10	24.4424	26.1332	28.1924	30.7330	33.9067	10
11	30.9281	33.5378	36.7687	40.8222	46.0324	11
12	39.4645	43.5015	48.5868	55.1502	63.9855	12
13	50.9664	57.2481	65.3913	76.3924	92.0376	13
14	66.8511	76.8131	90.3226	109.6091	138.8263	14
15	89.4769	105.8615	129.3382	165.0458	222.5891	15
16	123.0900	151.3456	194.4846	264.3277	384.9007	16
17	175.7459	227.3229	311.1913	456.7523	735.7835	17
18	263.7319	363.4666	537.4262	872.7804	1 638.934	18
19	421.4260	627.4163	1 026.599	1 943.676	4 663.238	19
20	727.1913	1 198.180	2 285.836	5 529.788	18 248.26	20
21	1 388.417	2 667.509	6 502.737	21 638.53	132 853.2	21
22	3 090.682	7 588.042	25 445.07	157 534.1		22
23	8 791.357	29 691.20	185 245.5			23
24	34 399.02	216 156.9				24
25	250 429.5					25

n	$x=75$	$x=76$	$x=77$	$x=78$	$x=79$	n
1	1.1484	1.1585	1.1699	1.1829	1.1978	1
2	2.4890	2.5253	2.5669	2.6147	2.6717	2
3	4.0819	4.1702	4.2724	4.3841	4.5383	3
4	6.0115	6.1929	6.4092	6.6673	6.9757	4
5	8.3983	8.7437	9.1581	9.6572	10.2602	5
6	11.4247	12.0437	12.7944	13.7098	14.8491	6
7	15.3574	16.4289	17.7455	19.3981	21.5620	7
8	20.6027	22.4211	24.7202	27.7508	31.9541	8
9	27.7904	30.8860	34.9912	40.7191	49.1725	9
10	37.9666	43.3795	50.9736	62.2512	79.8695	10
11	53.0124	62.8537	77.5525	100.6895	139.2140	11
12	76.4966	95.2795	125.0475	175.0548	267.3411	12
13	115.6367	153.2671	216.9863	335.6776	596.9100	13
14	185.6736	265.5653	415.6270	748.9207	1 700.188	14
15	321.3520	508.2508	926.7638	2 132.438	6 655.689	15
16	614.6174	1 132.800	2 638.144	8 346.815	48 460.18	16
17	1 369.407	3 224.020	10 325.33	60 771.45		17
18	3 896.823	12 617.49	75 174.87			18
19	15 249.76	91 861.66				19
20	111 024.3					20

Single Premium Endowment Insurance

4% $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=15$	$x=16$	$x=17$	$x=18$	$x=19$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.84	924.84	924.84	924.84	924.84	2
3	889.82	889.82	889.83	889.83	889.84	3
4	856.41	856.41	856.42	856.43	856.44	4
5	824.53	824.54	824.55	824.56	824.58	5
6	794.11	794.13	794.15	794.17	794.19	6
7	765.10	765.12	765.14	765.17	765.20	7
8	737.42	737.45	737.48	737.52	737.55	8
9	711.01	711.05	711.09	711.14	711.19	9
10	685.82	685.87	685.92	685.98	686.04	10
11	661.79	661.85	661.92	661.99	662.06	11
12	638.88	638.95	639.02	639.11	639.20	12
13	617.02	617.11	617.20	617.29	617.40	13
14	596.18	596.28	596.38	596.49	596.62	14
15	576.31	576.42	576.54	576.67	576.80	15
16	557.36	557.48	557.62	557.76	557.92	16
17	539.29	539.43	539.58	539.75	539.92	17
18	522.06	522.22	522.39	522.58	522.77	18
19	505.64	505.82	506.01	506.21	506.43	19
20	489.99	490.18	490.39	490.62	490.87	20
21	475.07	475.29	475.52	475.77	476.04	21
22	460.86	461.09	461.35	461.62	461.92	22
23	447.31	447.57	447.85	448.15	448.48	23
24	434.41	434.69	434.99	435.32	435.68	24
25	422.12	422.43	422.76	423.11	423.50	25
26	410.42	410.75	411.11	411.49	411.91	26
27	399.28	399.63	400.02	400.44	400.89	27
28	388.67	389.05	389.47	389.92	390.41	28
29	378.57	378.99	379.44	379.92	380.45	29
30	368.97	369.41	369.90	370.42	370.99	30
31	359.83	360.31	360.83	361.39	362.01	31
32	351.15	351.66	352.22	352.82	353.48	32
33	342.89	343.44	344.04	344.69	345.40	33
34	335.05	335.64	336.28	336.97	337.74	34
35	327.60	328.23	328.92	329.67	330.48	35
36	320.54	321.21	321.94	322.75	323.62	36
37	313.84	314.55	315.34	316.20	317.14	37
38	307.49	308.25	309.10	310.02	311.03	38
39	301.48	302.30	303.20	304.18	305.26	39
40	295.79	296.67	297.63	298.68	299.84	40
41	290.42	291.35	292.38	293.51	294.74	41
42	285.35	286.35	287.44	288.65	289.96	42
43	280.57	281.64	282.80	284.09	285.49	43
44	276.08	277.21	278.45	279.82	281.32	44
45	271.85	273.06	274.38	275.84	277.43	45
46	267.89	269.17	270.58	272.13	273.81	46
47	264.19	265.55	267.04	268.68	270.47	47
48	260.72	262.17	263.75	265.49	267.38	48
49	257.50	259.03	260.70	262.54	264.54	49
50	254.51	256.12	257.89	259.83	261.94	50

Single Premium Endowment Insurance

American Experience $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ 4%

n	$x=20$	$x=21$	$x=22$	$x=23$	$x=24$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.84	924.85	924.85	924.85	924.85	2
3	889.84	889.84	889.85	889.86	889.86	3
4	856.45	856.46	856.47	856.48	856.49	4
5	824.59	824.61	824.63	824.65	824.67	5
6	794.21	794.24	794.26	794.29	794.32	6
7	765.23	765.27	765.30	765.34	765.38	7
8	737.60	737.64	737.69	737.74	737.79	8
9	711.24	711.30	711.36	711.42	711.49	9
10	686.11	686.18	686.25	686.33	686.42	10
11	662.14	662.23	662.32	662.41	662.52	11
12	639.29	639.40	639.50	639.62	639.74	12
13	617.51	617.63	617.76	617.89	618.03	13
14	596.74	596.88	597.03	597.19	597.36	14
15	576.95	577.11	577.28	577.46	577.65	15
16	558.09	558.27	558.46	558.67	558.89	16
17	540.11	540.32	540.54	540.77	541.02	17
18	522.99	523.22	523.46	523.72	524.00	18
19	506.67	506.93	507.20	507.49	507.81	19
20	491.13	491.41	491.72	492.04	492.39	20
21	476.33	476.64	476.98	477.34	477.73	21
22	462.24	462.58	462.95	463.35	463.78	22
23	448.83	449.20	449.61	450.04	450.52	23
24	436.06	436.47	436.91	437.39	437.91	24
25	423.91	424.36	424.85	425.37	425.94	25
26	412.36	412.85	413.38	413.95	414.57	26
27	401.38	401.91	402.48	403.10	403.78	27
28	390.94	391.51	392.13	392.81	393.54	28
29	381.02	381.64	382.32	383.05	383.85	29
30	371.61	372.28	373.01	373.80	374.67	30
31	362.67	363.40	364.19	365.04	365.99	31
32	354.20	354.98	355.83	356.76	357.79	32
33	346.17	347.01	347.93	348.94	350.05	33
34	338.57	339.48	340.47	341.56	342.75	34
35	331.38	332.36	333.43	334.60	335.89	35
36	324.58	325.64	326.79	328.05	329.44	36
37	318.17	319.30	320.54	321.90	323.39	37
38	312.13	313.34	314.67	316.13	317.73	38
39	306.45	307.75	309.17	310.73	312.45	39
40	301.11	302.50	304.02	305.69	307.52	40
41	296.10	297.58	299.21	300.99	302.96	41
42	291.41	293.00	294.73	296.63	298.72	42
43	287.03	288.72	290.57	292.59	294.81	43
44	282.96	284.75	286.72	288.86	291.21	44
45	279.17	281.08	283.16	285.44	287.92	45
46	275.66	277.68	279.89	282.30	284.92	46
47	272.42	274.56	276.90	279.44	282.20	47
48	269.45	271.71	274.17	276.84	279.73	48
49	266.72	269.10	271.69	274.50	277.55	49
50	264.24	266.74	269.46	272.40	275.59	50

Single Premium Endowment Insurance

4% $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=25$	$x=26$	$x=27$	$x=28$	$x=29$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.85	924.86	924.86	924.86	924.86	2
3	889.87	889.87	889.88	889.89	889.90	3
4	856.50	856.52	856.53	856.55	856.56	4
5	824.69	824.71	824.73	824.76	824.79	5
6	794.35	794.38	794.42	794.46	794.50	6
7	765.42	765.47	765.52	765.57	765.63	7
8	737.85	737.91	737.98	738.05	738.12	8
9	711.56	711.64	711.72	711.82	711.92	9
10	686.51	686.60	686.71	686.82	686.95	10
11	662.63	662.75	662.88	663.01	663.16	11
12	639.87	640.02	640.17	640.33	640.51	12
13	618.19	618.36	618.54	618.74	618.95	13
14	597.54	597.73	597.95	598.18	598.42	14
15	577.86	578.09	578.34	578.60	578.89	15
16	559.15	559.39	559.67	559.97	560.30	16
17	541.31	541.58	541.90	542.25	542.62	17
18	524.33	524.64	525.00	525.39	525.82	18
19	508.15	508.52	508.92	509.36	509.84	19
20	492.77	493.19	493.64	494.13	494.66	20
21	478.15	478.61	479.11	479.65	480.26	21
22	464.24	464.75	465.31	465.91	466.58	22
23	451.03	451.59	452.20	452.87	453.62	23
24	438.47	439.09	439.77	440.51	441.33	24
25	426.55	427.23	427.98	428.79	429.69	25
26	415.24	415.99	416.80	417.70	418.69	26
27	404.52	405.33	406.22	407.21	408.30	27
28	394.35	395.24	396.22	397.29	398.49	28
29	384.73	385.70	386.76	387.94	389.24	29
30	375.63	376.68	377.84	379.12	380.54	30
31	367.03	368.17	369.44	370.83	372.37	31
32	358.91	360.16	361.52	363.03	364.70	32
33	351.27	352.61	354.09	355.72	357.53	33
34	344.07	345.52	347.12	348.88	350.83	34
35	337.31	338.87	340.60	342.50	344.59	35
36	330.97	332.65	334.51	336.55	338.80	36
37	325.03	326.84	328.83	331.02	333.43	37
38	319.49	321.43	323.56	325.90	328.48	38
39	314.33	316.41	318.68	321.18	323.92	39
40	309.54	311.75	314.18	316.84	319.75	40
41	305.10	307.45	310.03	312.86	315.95	41
42	301.00	303.50	306.24	309.23	312.50	42
43	297.23	299.89	302.78	305.96	309.39	43
44	293.78	296.59	299.65	302.98	306.60	44
45	290.64	293.60	296.82	300.32	304.12	45
46	287.78	290.90	294.28	297.95	301.92	46
47	285.21	288.48	292.03	295.86	300.09	47
48	282.90	286.33	290.03	294.02	298.32	48
49	280.85	284.43	288.28	292.42	296.87	49
50	279.03	282.75	286.75	291.04	295.63	50

Single Premium Endowment Insurance

American Experience $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ 4%

n	$x=30$	$x=31$	$x=32$	$x=33$	$x=34$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.87	924.87	924.87	924.88	924.88	2
3	889.91	889.92	889.93	889.94	889.95	3
4	856.58	856.60	856.62	856.65	856.67	4
5	824.82	824.85	824.88	824.92	824.96	5
6	794.54	794.59	794.65	794.70	794.76	6
7	765.69	765.76	765.84	765.92	766.00	7
8	738.21	738.30	738.40	738.50	738.62	8
9	712.02	712.14	712.27	712.40	712.56	9
10	687.08	687.22	687.39	687.56	687.75	10
11	663.33	663.50	663.70	663.91	664.15	11
12	640.71	640.92	641.16	641.42	641.70	12
13	619.18	619.44	619.72	620.02	620.35	13
14	598.70	598.99	599.32	599.68	600.07	14
15	579.20	579.55	579.93	580.34	580.80	15
16	560.66	561.06	561.49	561.97	562.50	16
17	543.03	543.49	543.98	544.53	545.14	17
18	526.28	526.79	527.36	527.98	528.67	18
19	510.36	510.94	511.58	512.29	513.07	19
20	495.25	495.90	496.62	497.41	498.29	20
21	480.91	481.64	482.44	483.33	484.32	21
22	467.31	468.12	469.02	470.02	471.12	22
23	454.43	455.33	456.33	457.44	458.66	23
24	442.23	443.22	444.33	445.56	446.92	24
25	430.69	431.79	433.01	434.37	435.88	25
26	419.79	421.00	422.35	423.84	425.50	26
27	409.50	410.83	412.31	413.95	415.77	27
28	399.80	401.26	402.88	404.67	406.66	28
29	390.68	392.27	394.03	395.99	398.15	29
30	382.11	383.84	385.76	387.88	390.23	30
31	374.07	375.95	378.03	380.33	382.87	31
32	366.55	368.58	370.83	373.32	376.05	32
33	359.52	361.72	364.15	366.82	369.76	33
34	352.98	355.34	357.95	360.83	363.98	34
35	346.90	349.44	352.24	355.31	358.68	35
36	341.27	343.99	346.98	350.27	353.86	36
37	336.08	338.98	342.17	345.66	349.48	37
38	331.30	334.39	337.78	341.49	345.53	38
39	326.92	330.21	333.81	337.73	341.99	39
40	322.94	326.42	330.22	334.35	338.84	40
41	319.32	323.00	327.00	331.35	336.05	41
42	316.06	319.93	324.14	328.69	333.60	42
43	313.14	317.20	321.60	326.35	331.47	43
44	310.53	314.78	319.38	324.32	329.63	44
45	308.23	312.66	317.43	322.57	328.05	45
46	306.21	310.82	315.75	321.07	326.72	46
47	304.45	309.22	314.34	319.80	325.61	47
48	302.93	307.86	313.13	318.74	324.70	48
49	301.63	306.71	312.12	317.87	323.96	49
50	300.53	305.75	311.29	317.17	323.38	50

Single Premium Endowment Insurance

4% $1000\,A_{x\overline{n}|} = 1000\,(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=35$	$x=36$	$x=37$	$x=38$	$x=39$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.89	924.89	924.90	924.90	924.91	2
3	889.97	889.98	890.00	890.02	890.04	3
4	856.70	856.73	856.76	856.80	856.84	4
5	825.01	825.06	825.12	825.18	825.25	5
6	794.83	794.91	794.99	795.09	795.19	6
7	766.10	766.21	766.33	766.46	766.60	7
8	738.75	738.89	739.05	739.23	739.41	8
9	712.72	712.91	713.11	713.33	713.58	9
10	687.96	688.19	688.44	688.73	689.04	10
11	664.40	664.69	665.00	665.35	665.73	11
12	642.01	642.35	642.73	643.15	643.62	12
13	620.72	621.13	621.58	622.09	622.65	13
14	600.50	600.98	601.52	602.11	602.78	14
15	581.30	581.86	582.49	583.19	583.96	15
16	563.08	563.73	564.46	565.27	566.17	16
17	545.80	546.55	547.39	548.32	549.36	17
18	529.43	530.29	531.24	532.31	533.49	18
19	513.93	514.90	515.99	517.20	518.54	19
20	499.27	500.37	501.59	502.95	504.47	20
21	485.42	486.65	488.02	489.55	491.26	21
22	472.35	473.73	475.26	476.96	478.86	22
23	460.03	461.56	463.26	465.16	467.26	23
24	448.44	450.14	452.01	454.11	456.43	24
25	437.55	439.42	441.49	443.79	446.34	25
26	427.34	429.39	431.66	434.18	436.96	26
27	417.79	420.02	422.50	425.25	428.28	27
28	408.86	411.30	414.00	416.98	420.27	28
29	400.55	403.20	406.12	409.35	412.91	29
30	392.82	395.69	398.85	402.34	406.16	30
31	385.67	388.77	392.17	395.91	400.02	31
32	379.07	382.40	386.05	390.06	394.44	32
33	373.00	376.57	380.47	384.75	389.41	33
34	367.45	371.25	375.41	379.95	384.90	34
35	362.38	366.43	370.85	375.66	380.88	35
36	357.79	362.08	366.75	371.83	377.33	36
37	353.64	358.18	363.11	368.45	374.21	37
38	349.93	354.71	359.88	365.48	371.50	38
39	346.62	351.64	357.06	362.90	369.15	39
40	343.69	348.94	354.59	360.66	367.15	40
41	341.12	346.60	352.47	358.76	365.46	41
42	338.88	344.57	350.65	359.14	364.04	42
43	336.96	342.84	349.11	355.80	362.88	43
44	335.31	341.37	347.83	354.69	361.94	44
45	333.91	340.15	346.78	353.79	361.19	45
46	332.75	339.15	345.92	353.08	360.61	46
47	331.79	338.33	345.24	352.53	360.17	47
48	331.01	337.69	344.72	352.11	359.85	48
49	330.40	337.19	344.32	351.80	359.62	49
50	329.92	336.81	344.02	351.58	359.49	50

Single Premium Endowment Insurance

American Experience $1000\,A_{x\,\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ 4%

n	$x=40$	$x=41$	$x=42$	$x=43$	$x=44$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.92	924.93	924.94	924.94	924.96	2
3	890.06	890.08	890.11	890.14	890.17	3
4	856.88	856.93	856.99	857.05	857.12	4
5	825.32	825.40	825.49	825.60	825.71	5
6	795.30	795.42	795.56	795.72	795.89	6
7	766.76	766.93	767.13	767.35	767.60	7
8	739.63	739.86	740.13	740.42	740.76	8
9	713.86	714.16	714.50	714.89	715.34	9
10	689.38	689.77	690.21	690.70	691.26	10
11	666.17	666.64	667.19	667.80	668.50	11
12	644.15	644.73	645.39	646.14	646.99	12
13	623.22	623.98	624.78	625.67	626.69	13
14	603.52	604.36	605.30	606.36	607.56	14
15	584.84	585.82	586.92	588.16	589.55	15
16	567.19	568.32	569.59	571.03	572.64	16
17	550.53	551.83	553.29	554.94	556.78	17
18	534.83	536.31	537.98	539.85	541.93	18
19	520.05	521.73	523.62	525.72	528.07	19
20	506.17	508.06	510.18	512.54	515.16	20
21	493.16	495.27	497.63	500.25	503.17	21
22	480.97	483.32	485.94	488.84	492.06	22
23	469.60	472.20	475.08	478.27	481.81	23
24	459.00	461.86	465.02	468.52	472.39	24
25	449.16	452.29	455.74	459.56	463.76	25
26	440.05	443.45	447.21	451.34	455.89	26
27	431.64	435.33	439.39	443.86	448.75	27
28	423.90	427.89	432.27	437.07	442.32	28
29	416.82	421.11	425.81	430.95	436.55	29
30	410.36	414.96	419.98	425.46	431.41	30
31	404.51	409.41	414.76	420.57	426.87	31
32	399.23	404.44	410.10	416.24	422.88	32
33	394.49	400.01	405.99	412.45	419.40	33
34	390.27	396.09	402.38	409.14	416.40	34
35	386.54	392.65	399.23	406.29	413.84	35
36	383.27	389.66	396.52	403.85	411.67	36
37	380.42	387.07	394.20	401.79	409.87	37
38	377.96	384.86	392.23	400.07	408.38	38
39	375.85	383.00	390.60	398.65	407.17	39
40	374.08	381.44	389.25	397.51	406.22	40
41	372.59	380.15	388.16	396.60	405.47	41
42	371.37	379.12	387.29	395.89	404.91	42
43	370.38	378.29	386.62	395.36	404.50	43
44	369.60	377.65	386.11	394.96	404.20	44
45	368.99	377.17	385.73	394.68	404.01	45
46	368.53	376.81	385.47	394.50	403.89	46
47	368.19	376.56	385.29	394.38	403.81	47
48	367.95	376.39	385.18	394.31	403.78	48
49	367.79	376.28	385.12	394.28	403.76	49
50	367.68	376.22	385.08	394.26	403.75	50

4% $1000A_{x\,\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=45$	$x=46$	$x=47$	$x=48$	$x=49$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	924.97	924.98	925.00	925.02	925.04	2
3	890.21	890.26	890.31	890.36	890.43	3
4	857.19	857.28	857.38	857.50	857.63	4
5	825.84	825.99	826.16	826.36	826.58	5
6	796.09	796.32	796.58	796.88	797.22	6
7	767.88	768.20	768.58	769.00	769.47	7
8	741.15	741.59	742.09	742.65	743.29	8
9	715.84	716.41	717.06	717.79	718.61	9
10	691.90	692.62	693.44	694.36	695.39	10
11	669.28	670.18	671.18	672.31	673.58	11
12	647.94	649.02	650.23	651.60	653.12	12
13	627.83	629.11	630.56	632.17	633.98	13
14	608.90	610.41	612.10	614.00	616.10	14
15	591.12	592.87	594.83	597.02	599.45	15
16	574.44	576.46	578.71	581.21	583.98	16
17	558.84	561.13	563.69	566.52	569.65	17
18	544.26	546.86	549.73	552.92	556.43	18
19	530.69	533.60	536.81	540.37	544.27	19
20	518.08	521.31	524.89	528.82	533.14	20
21	506.40	509.98	513.92	518.25	522.99	21
22	495.63	499.56	503.88	508.62	513.79	22
23	485.72	490.01	494.73	499.88	505.49	23
24	476.64	481.31	486.42	492.00	498.05	24
25	468.37	473.42	478.94	484.93	491.42	25
26	460.87	466.31	472.22	478.64	485.56	26
27	454.10	459.93	466.24	473.07	480.41	27
28	448.04	454.24	460.96	468.18	475.93	28
29	442.63	449.22	456.31	463.93	472.06	29
30	437.85	444.81	452.27	460.26	468.76	30
31	433.66	440.97	448.78	457.12	465.96	31
32	430.01	437.65	445.80	454.46	463.63	32
33	426.85	434.82	443.28	452.25	461.71	33
34	424.16	432.42	441.18	450.43	460.16	34
35	421.88	430.42	439.44	448.95	458.92	35
36	419.98	428.77	438.04	447.78	457.97	36
37	418.41	427.44	436.93	446.87	457.24	37
38	417.15	426.39	436.07	446.18	456.71	38
39	416.14	425.56	435.41	445.67	456.33	39
40	415.36	424.94	434.93	445.32	456.08	40
41	414.77	424.48	434.59	445.08	455.92	41
42	414.33	424.16	434.36	444.93	455.82	42
43	414.03	423.94	434.22	444.84	455.78	43
44	413.82	423.81	434.13	444.79	455.75	44
45	413.69	423.73	434.09	444.77	455.75	45
46	413.62	423.69	434.07	444.76	455.74	46
47	413.58	423.67	434.06	444.76	455.74	47
48	413.56	423.66	434.06	444.76		48
49	413.55	423.66	434.06			49
50	413.55	423.66				50

American Experience $1000A_{x\,n} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ 4%

n	$x=50$	$x=51$	$x=52$	$x=53$	$x=54$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	925.07	925.09	925.12	925.16	925.20	2
3	890.51	890.59	890.68	890.79	890.91	3
4	857.79	857.96	858.14	858.35	858.59	4
5	826.84	827.12	827.44	827.79	828.18	5
6	797.60	798.02	798.50	799.02	799.60	6
7	770.01	770.60	771.27	772.00	772.81	7
8	744.00	744.80	745.68	746.66	747.74	8
9	719.53	720.56	721.69	722.94	724.32	9
10	696.54	697.82	699.23	700.79	702.51	10
11	674.99	676.55	678.27	680.17	682.26	11
12	654.81	656.68	658.74	661.01	663.49	12
13	635.97	638.17	640.60	643.26	646.18	13
14	618.42	620.99	623.80	626.88	630.26	14
15	602.12	605.07	608.29	611.82	615.68	15
16	587.03	590.37	594.04	598.03	602.38	16
17	573.09	576.86	580.98	585.46	590.33	17
18	560.28	564.49	569.08	574.06	579.46	18
19	548.55	553.21	558.28	563.78	569.71	19
20	537.86	542.99	548.55	554.56	561.03	20
21	528.16	533.76	539.82	546.35	553.36	21
22	519.41	525.49	532.05	539.09	546.62	22
23	511.57	518.13	525.17	532.71	540.75	23
24	504.59	511.61	519.14	527.16	535.68	24
25	498.41	505.89	513.88	522.37	531.35	25
26	492.98	500.91	509.34	518.27	527.69	26
27	488.26	496.62	505.47	514.81	524.64	27
28	484.19	492.94	502.19	511.92	522.12	28
29	480.70	489.84	499.45	509.54	520.09	29
30	477.76	487.24	497.20	507.62	518.47	30
31	475.30	485.11	495.38	506.09	517.22	31
32	473.27	483.38	493.94	504.91	516.27	32
33	471.64	482.01	492.81	504.01	515.57	33
34	470.34	480.95	491.96	503.34	515.07	34
35	469.33	480.14	491.33	502.88	514.74	35
36	468.56	479.55	490.89	502.56	514.53	36
37	468.00	479.13	490.60	502.37	514.41	37
38	467.60	478.85	490.41	502.25	514.35	38
39	467.34	478.67	490.30	502.19	514.32	39
40	467.17	478.57	490.24	502.17	514.31	40
41	467.07	478.52	490.22	502.16	514.31	41
42	467.02	478.49	490.21	502.15	514.31	42
43	467.00	478.48	490.21	502.15		43
44	466.99	478.48	490.21			44
45	466.99	478.48				45
46	466.99					46

4% $1000A_{x\,\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=55$	$x=56$	$x=57$	$x=58$	$x=59$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	925.24	925.29	925.34	925.40	925.47	2
3	891.04	891.18	891.34	891.52	891.72	3
4	858.85	859.14	859.46	859.80	860.20	4
5	828.61	829.09	829.61	830.19	830.84	5
6	800.25	800.96	801.75	802.61	803.57	6
7	773.71	774.70	775.79	776.99	778.31	7
8	748.93	750.24	751.68	753.26	755.00	8
9	725.85	727.52	729.35	731.36	733.57	9
10	704.40	706.48	708.75	711.23	713.94	10
11	684.55	687.06	689.80	692.79	696.05	11
12	666.22	669.20	672.44	675.98	679.82	12
13	649.37	652.84	656.63	660.74	665.19	13
14	633.94	637.94	642.28	646.99	652.07	14
15	619.87	624.42	629.34	634.66	640.38	15
16	607.11	612.23	617.75	623.68	630.05	16
17	595.60	601.29	607.41	613.97	620.97	17
18	585.29	591.56	598.28	605.45	613.07	18
19	576.10	582.95	590.26	598.03	606.25	19
20	567.97	575.39	583.27	591.62	600.42	20
21	560.84	568.81	577.24	586.14	595.50	21
22	554.63	563.12	572.09	581.51	591.38	22
23	549.27	558.27	567.73	577.65	588.00	23
24	544.68	554.16	564.10	574.47	585.26	24
25	540.81	550.74	561.11	571.90	583.09	25
26	537.58	547.92	558.69	569.86	581.40	26
27	534.91	545.63	556.76	568.27	580.12	27
28	532.76	543.82	555.27	567.07	579.18	28
29	531.05	542.42	554.14	566.18	578.51	29
30	529.72	541.35	553.30	565.56	578.07	30
31	528.72	540.56	552.72	565.14	577.79	31
32	527.98	540.01	552.32	564.87	577.62	32
33	527.45	539.64	552.07	564.72	577.54	33
34	527.10	539.41	551.93	564.64	577.50	34
35	526.88	539.27	551.86	564.61	577.49	35
36	526.76	539.20	551.82	564.59	577.48	36
37	526.69	539.17	551.81	564.59	577.48	37
38	526.66	539.16	551.81	564.59		38
39	526.65	539.15	551.81			39
40	526.65	539.15				40
41	526.65					41

n	$x=90$	$x=91$	$x=92$	$x=93$	$x=94$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	941.37	944.25	948.01	951.71	956.26	2
3	932.30	938.17	944.56	950.36		
4	929.11	936.61	944.08			
5	928.29	936.40			$x=95$	n
6	928.18				961.54	1

Single Premium Endowment Insurance

American Experience

$$1000A_{x\,n|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$$

4%

n	$x=60$	$x=61$	$x=62$	$x=63$	$x=64$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	925.54	925.62	925.71	925.81	925.92	2
3	891.93	892.17	892.43	892.73	893.05	3
4	860.62	861.10	861.62	862.19	862.82	4
5	831.54	832.32	833.17	834.11	835.14	5
6	804.61	805.76	807.02	808.40	809.90	6
7	779.76	781.34	783.07	784.96	787.02	7
8	756.90	758.97	761.24	763.70	766.38	8
9	735.97	738.59	741.44	744.53	747.88	9
10	716.89	720.10	723.58	727.34	731.40	10
11	699.59	703.42	707.57	712.03	716.82	11
12	683.98	688.48	693.31	698.49	704.02	12
13	669.99	675.16	680.70	686.61	692.88	13
14	657.53	663.39	669.63	676.26	683.27	14
15	646.51	653.05	659.99	667.32	675.05	15
16	636.84	644.05	651.67	659.69	668.10	16
17	628.41	636.27	644.55	653.23	662.29	17
18	621.14	629.63	638.54	647.84	657.52	18
19	614.92	624.02	633.52	643.41	653.66	19
20	609.67	619.33	629.39	639.82	650.59	20
21	605.28	615.48	626.05	636.98	648.21	21
22	601.67	612.36	623.40	634.76	646.40	22
23	598.75	609.88	621.34	633.08	645.08	23
24	596.44	607.96	619.77	631.85	644.14	24
25	594.63	606.50	618.62	630.98	643.51	25
26	593.27	605.42	617.81	630.39	643.12	26
27	592.26	604.66	617.27	630.03	642.89	27
28	591.56	604.16	616.93	629.81	642.77	28
29	591.08	603.84	616.73	629.70	642.71	29
30	590.78	603.65	616.63	629.65	642.69	30
31	590.61	603.56	616.58	629.64	642.69	31
32	590.52	603.51	616.56	629.63	642.69	32
33	590.48	603.50	616.56	629.63		33
34	590.46	603.49	616.56			34
35	590.46	603.49				35
36	590.46					36

n	$x=85$	$x=86$	$x=87$	$x=88$	$x=89$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	933.27	934.38	935.76	937.38	939.20	2
3	913.31	916.18	919.57	923.34	927.48	3
4	899.93	904.75	910.16	915.98	922.21	4
5	891.52	898.11	905.23	912.67	920.36	5
6	886.64	894.62	903.01	911.51	919.88	6
7	884.08	893.06	902.23	911.21	919.82	7
8	882.93	892.51	902.03	911.17		8
9	882.53	892.37	902.01			9
10	882.42	892.35				10
11	882.41					11

Single Premium Endowment Insurance

4% $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ American Experience

n	$x=65$	$x=66$	$x=67$	$x=68$	$x=69$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	926.04	926.17	926.32	926.48	926.66	2
3	893.40	893.79	894.21	894.68	895.19	3
4	863.51	864.27	865.10	866.00	866.99	4
5	836.26	837.49	838.83	840.29	841.87	5
6	811.55	813.34	815.29	817.40	819.65	6
7	789.26	791.70	794.32	797.14	800.15	7
8	769.28	772.42	775.78	779.36	783.16	8
9	751.49	755.36	759.50	763.88	768.50	9
10	735.75	740.39	745.32	750.52	755.97	10
11	721.93	727.36	733.08	739.10	745.38	11
12	709.90	716.11	722.62	729.44	736.54	12
13	699.52	706.49	713.78	721.38	729.26	13
14	690.64	698.36	706.40	714.75	723.38	14
15	683.14	691.57	700.33	709.38	718.70	15
16	676.87	685.99	695.41	705.12	715.07	16
17	671.72	681.47	691.51	701.81	712.31	17
18	667.55	677.88	688.48	699.30	710.29	18
19	664.24	675.09	686.18	697.46	708.86	19
20	661.66	672.98	684.49	696.15	707.90	20
21	659.71	671.43	683.30	695.28	707.30	21
22	658.28	670.33	682.50	694.73	706.95	22
23	657.27	669.59	682.00	694.41	706.77	23
24	656.59	669.13	681.71	694.25	706.68	24
25	656.16	668.86	681.55	694.17	706.66	25
26	655.91	668.72	681.48	694.14	706.65	26
27	655.78	668.66	681.46	694.14	706.65	27
28	655.73	668.64	681.45	694.14		28
29	655.71	668.63	681.45			29
30	655.70	668.63				30
31	655.70					31

n	$x=80$	$x=81$	$x=82$	$x=83$	$x=84$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	929.90	930.42	931.00	931.64	932.37	2
3	904.30	905.72	907.26	908.97	910.93	3
4	883.98	886.51	889.26	892.30	895.80	4
5	868.18	871.95	876.03	880.54	885.65	5
6	856.20	861.25	866.69	872.65	879.28	6
7	847.39	853.69	860.43	867.70	875.58	7
8	841.18	848.62	856.50	864.82	873.64	8
9	837.01	845.44	854.21	863.31	872.76	9
10	834.39	843.59	853.01	862.63	872.46	10
11	832.87	842.62	852.48	862.39	872.38	11
12	832.08	842.19	852.29	862.33	872.37	12
13	831.72	842.03	852.24	862.33		13
14	831.59	841.99	852.23			14
15	831.56	841.99				15
16	831.55					16

Single Premium Endowment Insurance

American Experience $1000A_{x\overline{n}|} = 1000(M_x - M_{x+n} + D_{x+n})/D_x$ 4%

n	$x=70$	$x=71$	$x=72$	$x=73$	$x=74$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	926.85	927.06	927.28	927.52	927.77	2
3	895.75	896.35	896.99	897.66	898.37	3
4	868.05	869.19	870.39	871.66	872.99	4
5	843.56	845.35	847.23	849.21	851.30	5
6	822.05	824.58	827.24	830.02	832.97	6
7	803.32	806.66	810.15	813.81	817.66	7
8	787.16	791.34	795.71	800.27	805.06	8
9	773.34	778.39	783.65	789.13	794.87	9
10	761.67	767.58	773.73	780.12	786.78	10
11	751.91	758.69	765.70	772.96	780.50	11
12	743.89	751.49	759.33	767.40	775.73	12
13	737.40	745.78	754.37	763.18	772.22	13
14	732.25	741.34	750.62	760.08	769.75	14
15	728.25	737.97	747.86	757.89	768.09	15
16	725.21	735.50	745.91	756.43	767.05	16
17	722.98	733.75	744.60	755.50	766.44	17
18	721.40	732.58	743.78	754.97	766.12	18
19	720.34	731.84	743.30	754.69	765.98	19
20	719.68	731.42	743.05	754.56	765.93	20
21	719.29	731.19	742.94	754.52	765.92	21
22	719.09	731.09	742.90	754.51	765.92	22
23	719.00	731.06	742.89	754.51		23
24	718.97	731.05	742.89			24
25	718.96	731.05				25
26	718.96					26

n	$x=75$	$x=76$	$x=77$	$x=78$	$x=79$	n
1	961.54	961.54	961.54	961.54	961.54	1
2	928.05	928.34	928.66	929.02	929.43	2
3	899.14	899.96	900.87	901.88	903.01	3
4	874.43	875.98	877.67	879.55	881.64	4
5	853.54	855.95	858.58	861.48	864.68	5
6	836.10	839.47	843.14	847.14	851.49	6
7	821.75	826.14	830.88	835.99	841.48	7
8	810.15	815.56	821.35	827.54	834.13	8
9	800.93	807.34	814.13	821.32	828.94	9
10	793.77	801.10	808.81	816.93	825.46	10
11	788.34	796.51	805.06	813.99	823.28	11
12	784.34	793.28	802.55	812.15	822.01	12
13	781.52	791.11	800.97	811.07	821.34	13
14	779.63	789.74	800.05	810.51	821.04	14
15	778.45	788.95	799.57	810.26	820.94	15
16	777.76	788.54	799.36	810.17	820.91	16
17	777.40	788.35	799.28	810.14	820.91	17
18	777.23	788.28	799.26	810.14		18
19	777.18	788.27	799.26			19
20	777.16	788.27				20
21	777.16					21

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	Daily difference	$n=1$	Daily difference	$n=2$	Daily difference	$n=3$	Daily difference	$n=4$	Daily difference	x
15	.0201	7.34	.0193	14.37	.0184	21.10	.0177	27.55	.0170	15
16	.0202	7.37	.0193	14.42	.0185	21.19	.0178	27.67	.0170	16
17	.0202	7.39	.0194	14.48	.0186	21.28	.0178	27.79	.0172	17
18	.0204	7.43	.0195	14.55	.0187	21.38	.0180	27.94	.0173	18
19	.0205	7.47	.0196	14.63	.0188	21.50	.0181	28.11	.0173	19
20	.0205	7.50	.0198	14.71	.0190	21.63	.0182	28.28	.0175	20
21	.0207	7.55	.0200	14.85	.0190	21.77	.0183	28.46	.0176	21
22	.0208	7.60	.0200	14.90	.0192	21.91	.0184	28.64	.0177	22
23	.0210	7.65	.0201	15.00	.0193	22.05	.0186	28.84	.0179	23
24	.0211	7.70	.0203	15.10	.0195	22.21	.0187	29.05	.0180	24
25	.0212	7.75	.0204	15.21	.0196	22.38	.0189	29.27	.0182	25
26	.0214	7.82	.0206	15.33	.0198	22.57	.0191	29.54	.0183	26
27	.0216	7.88	.0208	15.46	.0200	22.76	.0192	29.78	.0185	27
28	.0218	7.95	.0210	15.60	.0202	22.96	.0195	30.06	.0187	28
29	.0220	8.02	.0212	15.75	.0204	23.19	.0196	30.36	.0190	29
30	.0222	8.10	.0214	15.90	.0206	23.42	.0199	30.69	.0192	30
31	.0224	8.18	.0216	16.07	.0209	23.71	.0201	31.04	.0195	31
32	.0227	8.28	.0219	16.27	.0211	23.98	.0204	31.43	.0198	32
33	.0230	8.38	.0222	16.48	.0214	24.29	.0207	31.85	.0201	33
34	.0233	8.49	.0225	16.69	.0218	24.63	.0210	32.31	.0204	34
35	.0236	8.60	.0228	16.93	.0221	24.99	.0214	32.81	.0208	35
36	.0239	8.74	.0232	17.20	.0225	25.41	.0218	33.38	.0212	36
37	.0243	8.88	.0236	17.50	.0229	25.86	.0223	34.00	.0217	37
38	.0248	9.05	.0241	17.83	.0234	26.37	.0228	34.68	.0222	38
39	.0253	9.22	.0246	18.19	.0240	26.93	.0233	35.42	.0228	39
40	.0258	9.42	.0251	18.58	.0245	27.52	.0239	36.24	.0234	40
41	.0264	9.62	.0257	19.01	.0251	28.17	.0246	37.14	.0241	41
42	.0270	9.86	.0264	19.48	.0259	28.92	.0253	38.15	.0249	42
43	.0276	10.11	.0273	20.02	.0266	29.73	.0262	39.30	.0259	43
44	.0285	10.41	.0280	20.62	.0275	30.67	.0272	40.59	.0269	44
45	.0294	10.73	.0290	21.30	.0286	31.73	.0283	42.06	.0282	45
46	.0305	11.12	.0300	22.08	.0298	32.94	.0296	43.74	.0296	46
47	.0316	11.54	.0313	22.97	.0311	34.33	.0311	45.67	.0311	47
48	.0330	12.03	.0328	24.00	.0327	35.93	.0327	47.88	.0328	48
49	.0345	12.60	.0345	25.18	.0345	37.76	.0346	50.38	.0347	49
50	.0363	13.25	.0363	26.51	.0364	39.80	.0366	53.16	.0369	50
51	.0383	13.98	.0384	28.00	.0386	42.09	.0389	56.28	.0392	51
52	.0406	14.80	.0407	29.67	.0410	44.64	.0414	59.75	.0418	52
53	.0430	15.70	.0433	31.52	.0437	47.48	.0442	63.61	.0447	53
54	.0458	16.73	.0462	33.60	.0467	50.65	.0472	67.88	.0478	54
55	.0489	17.86	.0494	35.90	.0500	54.15	.0506	72.60	.0512	55
56	.0524	19.12	.0530	38.45	.0536	58.01	.0543	77.82	.0550	56
57	.0562	20.51	.0569	41.27	.0577	62.28	.0583	83.56	.0590	57
58	.0604	22.05	.0612	44.38	.0620	67.00	.0627	89.89	.0635	58
59	.0651	23.77	.0659	47.84	.0667	72.21	.0675	96.86	.0683	59
60	.0703	25.67	.0712	51.66	.0720	77.95	.0728	104.52	.0734	60
61	.0761	27.77	.0770	55.87	.0778	84.25	.0785	112.90	.0791	61
62	.0824	30.09	.0833	60.50	.0840	91.17	.0847	122.08	.0851	62
63	.0894	32.64	.0902	65.57	.0909	98.76	.0914	132.13	.0916	63
64	.0969	35.45	.0979	71.20	.0984	107.11	.0987	143.12	.0986	64

Single Premium Temporary Insurance

American Experience

$$1000A^{1}_{x\,n} = 1000(M_x - M_{x+n})/D_x$$

4%

x	Daily difference	$n=1$	Daily difference	$n=2$	Daily difference	$n=3$	Daily difference	$n=4$	Daily difference	x
65	.1060	38.59	.1063	77.38	.1065	116.26	.1064	155.11	.1059	65
66	.1152	42.03	.1153	84.16	.1153	126.26	.1148	168.15	.1137	66
67	.1255	45.81	.1254	91.60	.1248	137.16	.1236	182.29	.1217	67
68	.1370	50.00	.1363	99.75	.1350	149.03	.1329	197.55	.1298	68
69	.1495	54.58	.1481	108.64	.1458	161.86	.1424	213.85	.1380	69
70	.1633	59.61	.1608	118.29	.1571	175.62	.1521	231.13	.1460	70
71	.1782	65.06	.1741	128.62	.1686	190.18	.1619	249.27	.1541	71
72	.1942	70.90	.1881	139.56	.1806	205.48	.1719	268.23	.1623	72
73	.2112	77.09	.2027	151.10	.1931	221.56	.1822	288.07	.1708	73
74	.2293	83.68	.2182	163.34	.2060	238.54	.1931	309.01	.1795	74
75	.2486	90.74	.2349	176.41	.2199	256.68	.2045	331.32	.1885	75
76	.2696	98.38	.2525	190.55	.2349	276.27	.2164	355.27	.1982	76
77	.2926	106.79	.2721	206.10	.2508	297.62	.2296	381.42	.2073	77
78	.3183	116.18	.2934	223.26	.2686	321.30	.2426	409.84	.2157	78
79	.3471	126.67	.3177	242.64	.2870	347.38	.2551	440.50	.2226	79
80	.3806	138.91	.3437	264.36	.3056	375.90	.2667	473.23	.2287	80
81	.4178	152.50	.3715	288.09	.3242	406.41	.2780	507.88	.2350	81
82	.4592	167.59	.4007	313.83	.3438	439.26	.2904	545.26	.2407	82
83	.5046	184.19	.4329	342.17	.3659	475.68	.3030	586.37	.2442	83
84	.5568	203.23	.4706	374.98	.3902	517.37	.3142	632.04	.2405	84
85	.6206	226.49	.5146	414.27	.4144	565.49	.3177	681.44	.2279	85
86	.6999	255.46	.5637	461.19	.4323	618.93	.3101	732.08	.2068	86
87	.7983	291.37	.6122	514.78	.4392	675.02	.2929	781.90	.1799	87
88	.9133	333.36	.6552	572.46	.4370	731.95	.2685	829.94	.1438	88
89	1.0428	380.64	.6957	634.52	.4275	790.50	.2289	874.04	.0932	89
90	1.1973	437.06	.7359	705.59	.3941	849.40	.1604	907.93	.0479	90
91	1.4026	511.99	.7513	786.15	.3056	897.76	.0912	931.06	.0146	91
92	1.6708	609.86	.6803	858.13	.2030	932.21	.0326	944.08		92
93	1.9340	705.94	.5773	916.60	.0925	950.36				93
94	2.2580	824.18	.3619	956.26						94
95	2.6340	961.54								95

x	$n=5$	Daily difference	$n=6$	Daily difference	$n=7$	Daily difference	$n=8$	Daily difference	x
15	33.74	.0162	39.67	.0156	45.38	.0150	50.85	.0143	15
16	33.89	.0164	39.86	.0157	45.60	.0151	51.10	.0145	16
17	34.05	.0165	40.06	.0158	45.84	.0152	51.38	.0146	17
18	34.24	.0166	40.29	.0159	46.10	.0153	51.67	.0147	18
19	34.44	.0167	40.53	.0160	46.37	.0154	51.99	.0148	19
20	34.65	.0168	40.78	.0162	46.67	.0155	52.33	.0149	20
21	34.88	.0168	41.05	.0163	46.99	.0156	52.70	.0151	21
22	35.11	.0171	41.34	.0164	47.32	.0158	53.08	.0153	22
23	35.37	.0172	41.64	.0165	47.67	.0159	53.49	.0153	23
24	35.62	.0173	41.96	.0167	48.05	.0161	53.92	.0155	24

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=5$	Daily difference	$n=6$	Daily difference	$n=7$	Daily difference	$n=8$	Daily difference	x
25	35.91	.0175	42.30	.0169	48.46	.0162	54.39	.0158	25
26	36.22	.0177	42.68	.0170	48.89	.0165	54.90	.0159	26
27	36.55	.0179	43.07	.0173	49.37	.0167	55.45	.0161	27
28	36.90	.0181	43.51	.0175	49.88	.0169	56.04	.0163	28
29	37.29	.0183	43.98	.0176	50.42	.0172	56.68	.0166	29
30	37.70	.0185	44.47	.0180	51.03	.0174	57.38	.0168	30
31	38.15	.0188	45.03	.0182	51.68	.0177	58.14	.0172	31
32	38.64	.0192	45.63	.0185	52.40	.0180	58.98	.0175	32
33	39.19	.0195	46.29	.0189	53.19	.0183	59.90	.0179	33
34	39.77	.0198	47.00	.0193	54.05	.0188	60.90	.0183	34
35	40.41	.0203	47.80	.0197	54.99	.0192	62.00	.0187	35
36	41.13	.0207	48.68	.0202	56.04	.0197	63.22	.0193	36
37	41.92	.0212	49.64	.0207	57.18	.0203	64.57	.0198	37
38	42.78	.0217	50.70	.0212	58.44	.0209	66.05	.0205	38
39	43.73	.0223	51.86	.0219	59.84	.0215	67.70	.0213	39
40	44.78	.0230	53.16	.0226	61.41	.0223	69.55	.0221	40
41	45.94	.0238	54.61	.0234	63.16	.0232	71.62	.0231	41
42	47.25	.0246	56.23	.0244	65.13	.0243	73.98	.0242	42
43	48.74	.0256	58.08	.0255	67.38	.0254	76.66	.0254	43
44	50.41	.0268	60.18	.0267	69.93	.0268	79.69	.0268	44
45	52.33	.0281	62.58	.0282	72.83	.0283	83.12	.0285	45
46	54.52	.0296	65.30	.0297	76.12	.0298	87.00	.0300	46
47	57.01	.0312	68.40	.0313	79.83	.0316	91.36	.0318	47
48	59.86	.0330	71.90	.0332	84.02	.0335	96.26	.0338	48
49	63.05	.0350	75.82	.0353	88.70	.0357	101.72	.0361	49
50	66.62	.0372	80.20	.0376	93.91	.0380	107.79	.0384	50
51	70.58	.0397	85.06	.0401	99.68	.0406	114.49	.0410	51
52	75.02	.0423	90.45	.0428	106.07	.0433	121.88	.0439	52
53	79.91	.0452	96.40	.0458	113.10	.0464	130.02	.0469	53
54	85.31	.0484	102.98	.0490	120.86	.0496	138.96	.0502	54
55	91.29	.0518	110.21	.0525	129.38	.0531	148.76	.0537	55
56	97.88	.0556	118.17	.0563	138.72	.0569	159.48	.0574	56
57	105.11	.0597	126.91	.0603	148.93	.0609	171.16	.0614	57
58	113.06	.0641	136.46	.0647	160.08	.0652	183.89	.0656	58
59	121.78	.0689	146.92	.0694	172.26	.0698	197.73	.0700	59
60	131.32	.0740	158.34	.0744	185.50	.0746	212.72	.0746	60
61	141.77	.0795	170.79	.0797	199.88	.0796	228.95	.0792	61
62	153.16	.0854	184.32	.0853	215.45	.0849	246.43	.0841	62
63	165.58	.0916	199.01	.0911	232.27	.0903	265.21	.0889	63
64	179.10	.0981	214.91	.0972	250.38	.0956	285.29	.0934	64
65	193.78	.1049	232.07	.1033	269.78	.1009	306.61	.0977	65
66	209.64	.1119	250.49	.1093	290.40	.1059	329.04	.1016	66
67	226.71	.1189	270.11	.1152	312.14	.1105	352.49	.1052	67
68	244.94	.1257	290.84	.1207	334.90	.1149	376.84	.1085	68
69	264.21	.1324	312.55	.1261	358.56	.1190	402.00	.1115	69
70	284.43	.1390	335.17	.1312	383.06	.1230	427.94	.1143	70
71	305.52	.1455	358.63	.1362	408.39	.1268	454.66	.1168	71
72	327.46	.1521	382.97	.1414	434.59	.1303	482.16	.1193	72
73	350.39	.1588	408.34	.1464	461.76	.1340	510.66	.1210	73
74	374.53	.1654	434.92	.1515	490.21	.1368	540.15	.1216	74

Single Premium Temporary Insurance

American Experience $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ 4%

x	$n=5$	Daily difference	$n=6$	Daily difference	$n=7$	Daily difference	$n=8$	Daily difference	x
75	400.11	.1726	463.10	.1558	519.98	.1385	570.55	.1209	75
76	427.60	.1790	492.93	.1593	551.09	.1386	601.68	.1191	76
77	457.10	.1843	524.38	.1609	583.10	.1379	633.45	.1166	77
78	488.56	.1882	557.25	.1614	616.16	.1364	665.95	.1131	78
79	521.75	.1910	591.45	.1614	650.34	.1338	699.17	.1077	79
80	556.71	.1933	627.25	.1603	685.74	.1290	732.84	.0989	80
81	593.64	.1948	664.73	.1569	721.99	.1203	765.89	.0863	81
82	633.14	.1939	703.91	.1487	758.18	.1066	797.10	.0711	82
83	675.51	.1873	743.86	.1343	792.88	.0896	825.58	.0551	83
84	719.97	.1728	783.03	.1153	825.10	.0708	850.94	.0379	84
85	764.60	.1520	820.07	.0934	854.16	.0500	872.41	.0204	85
86	807.55	.1270	853.91	.0680	878.74	.0277	888.85	.0083	86
87	847.57	.0964	882.74	.0392	897.05	.0117	901.33	.0019	87
88	882.41	.0585	903.77	.0174	910.15	.0028	911.17		88
89	908.04	.0278	918.20	.0044	919.82				89
90	925.41	.0076	928.18						90
91	936.40								91

x	$n=9$	Daily difference	$n=10$	Daily difference	$n=11$	Daily difference	$n=12$	Daily difference	x
15	56.08	.0139	61.15	.0133	65.99	.0127	70.64	.0123	15
16	56.39	.0139	61.47	.0134	66.35	.0128	71.04	.0124	16
17	56.70	.0140	61.82	.0135	66.74	.0129	71.46	.0125	17
18	57.04	.0141	62.19	.0136	67.14	.0131	71.92	.0126	18
19	57.40	.0142	62.59	.0137	67.60	.0132	72.41	.0127	19
20	57.78	.0144	63.02	.0139	68.08	.0133	72.93	.0129	20
21	58.20	.0145	63.48	.0140	68.58	.0135	73.50	.0130	21
22	58.63	.0146	63.97	.0141	69.12	.0136	74.10	.0131	22
23	59.09	.0148	64.49	.0143	69.70	.0138	74.73	.0133	23
24	59.58	.0150	65.05	.0144	70.32	.0140	75.42	.0135	24
25	60.15	.0151	65.65	.0147	71.00	.0141	76.16	.0137	25
26	60.70	.0153	66.30	.0148	71.72	.0144	76.97	.0139	26
27	61.33	.0156	67.03	.0150	72.51	.0147	77.86	.0142	27
28	62.00	.0158	67.77	.0153	73.37	.0149	78.80	.0145	28
29	62.73	.0161	68.61	.0156	74.30	.0152	79.85	.0148	29
30	63.53	.0164	69.51	.0159	75.33	.0155	80.99	.0151	30
31	64.41	.0167	70.51	.0162	76.44	.0159	82.23	.0155	31
32	65.38	.0170	71.60	.0166	77.67	.0162	83.59	.0159	32
33	66.43	.0175	72.80	.0170	79.01	.0167	85.10	.0164	33
34	67.57	.0179	74.10	.0175	80.49	.0172	86.76	.0168	34
35	68.84	.0184	75.55	.0180	82.12	.0177	88.59	.0175	35
36	70.26	.0189	77.15	.0186	83.95	.0184	90.65	.0182	36
37	71.80	.0195	78.93	.0193	85.97	.0191	92.93	.0190	37
38	73.53	.0202	80.91	.0201	88.23	.0199	95.50	.0199	38
39	75.46	.0210	83.12	.0210	90.77	.0209	98.38	.0209	39
40	77.61	.0220	85.64	.0219	93.63	.0219	101.63	.0220	40
41	80.04	.0230	88.44	.0231	96.86	.0231	105.16	.0232	41
42	82.80	.0242	91.64	.0243	100.49	.0244	109.39	.0246	42
43	85.93	.0255	95.24	.0256	104.59	.0258	114.01	.0260	43
44	89.47	.0269	99.30	.0271	109.20	.0274	119.19	.0277	44

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=9$	Daily difference	$n=10$	Daily difference	$n=11$	Daily difference	$n=12$	Daily difference	x
45	93.45	.0285	103.86	.0288	114.36	.0291	124.97	.0294	45
46	97.95	.0303	108.99	.0306	120.15	.0309	131.44	.0313	46
47	102.98	.0322	114.72	.0325	126.59	.0329	138.60	.0333	47
48	108.61	.0343	121.11	.0346	133.75	.0351	146.55	.0355	48
49	114.88	.0365	128.20	.0369	141.68	.0375	155.33	.0379	49
50	121.82	.0389	136.02	.0394	150.41	.0399	164.98	.0404	50
51	129.47	.0416	144.64	.0421	160.00	.0426	175.54	.0430	51
52	137.89	.0444	154.10	.0449	170.50	.0454	187.08	.0458	52
53	147.14	.0475	164.47	.0479	181.97	.0484	199.63	.0488	53
54	157.28	.0507	175.79	.0512	194.46	.0516	213.28	.0518	54
55	168.35	.0542	188.12	.0546	208.04	.0549	228.06	.0550	55
56	180.42	.0578	201.53	.0581	222.75	.0583	244.02	.0583	56
57	193.56	.0617	216.07	.0618	238.65	.0618	261.20	.0615	57
58	207.82	.0657	231.80	.0657	255.77	.0654	279.63	.0647	58
59	223.26	.0699	248.77	.0696	274.16	.0689	299.31	.0678	59
60	239.94	.0742	267.01	.0735	293.83	.0723	320.23	.0707	60
61	257.88	.0785	286.53	.0773	314.74	.0755	342.30	.0731	61
62	277.12	.0828	307.33	.0809	336.84	.0783	365.42	.0752	62
63	297.64	.0868	329.33	.0842	360.01	.0807	389.47	.0768	63
64	319.40	.0905	352.43	.0869	384.14	.0827	414.33	.0781	64
65	342.28	.0938	376.52	.0893	409.12	.0843	439.89	.0790	65
66	366.14	.0976	401.46	.0914	434.81	.0856	466.05	.0796	66
67	390.90	.0993	427.16	.0931	461.14	.0866	492.73	.0798	67
68	416.44	.1017	453.55	.0945	488.05	.0871	519.85	.0798	68
69	442.71	.1037	480.56	.0956	515.44	.0875	547.38	.0790	69
70	469.68	.1054	508.14	.0965	543.36	.0872	575.17	.0775	70
71	497.30	.1070	536.35	.0966	571.62	.0859	602.97	.0750	71
72	525.71	.1078	565.05	.0958	600.02	.0836	630.54	.0717	72
73	554.83	.1075	594.09	.0939	628.36	.0806	657.75	.0680	73
74	584.55	.1061	623.29	.0910	656.51	.0769	684.59	.0638	74
75	614.69	.1037	652.54	.0876	684.52	.0727	711.04	.0585	75
76	645.15	.1006	681.88	.0834	712.34	.0672	736.86	.0515	76
77	676.01	.0967	711.29	.0779	739.71	.0597	761.49	.0428	77
78	707.23	.0911	740.47	.0698	765.96	.0501	784.24	.0334	78
79	738.50	.0826	768.65	.0592	790.27	.0395	804.70	.0243	79
80	768.96	.0710	794.86	.0473	812.14	.0291	822.75	.0156	80
81	797.38	.0576	818.39	.0353	831.29	.0189	838.20	.0077	81
82	823.06	.0437	839.01	.0234	847.55	.0095	851.03	.0028	82
83	845.67	.0295	856.43	.0120	860.81	.0036	862.12	.0006	83
84	864.78	.0155	870.42	.0046	872.10	.0007	872.37		84
85	879.84	.0061	882.06	.0010	882.41				85
86	891.87	.0013	892.35						86
87	902.01								87

Single Premium Temporary Insurance

American Experience

$1000A^{1}_{x\overline{n}} = 1000(M_x - M_{x+n})/D_x$

4%

x	$n=13$	Daily difference	$n=14$	Daily difference	$n=15$	Daily difference	$n=16$	Daily difference	x
15	75.12	.0119	79.45	.0113	83.58	.0109	87.57	.0105	15
16	75.56	.0119	79.90	.0115	84.08	.0110	88.11	.0107	16
17	76.02	.0120	80.40	.0116	84.62	.0112	88.70	.0107	17
18	76.51	.0121	80.94	.0117	85.21	.0113	89.33	.0109	18
19	77.05	.0122	81.52	.0118	85.84	.0114	90.01	.0110	19
20	77.62	.0124	82.14	.0120	86.51	.0116	90.73	.0112	20
21	78.23	.0126	82.82	.0121	87.24	.0117	91.52	.0113	21
22	78.89	.0127	83.53	.0123	88.02	.0119	92.36	.0116	22
23	79.60	.0129	84.30	.0125	88.85	.0121	93.27	.0116	23
24	80.35	.0131	85.13	.0127	89.76	.0123	94.25	.0120	24
25	81.16	.0133	86.02	.0129	90.74	.0125	95.32	.0122	25
26	82.06	.0136	87.01	.0132	91.82	.0128	96.49	.0125	26
27	83.04	.0138	88.08	.0134	92.98	.0131	97.78	.0128	27
28	84.10	.0141	89.24	.0137	94.25	.0134	99.14	.0132	28
29	85.25	.0144	90.51	.0141	95.65	.0138	100.67	.0135	29
30	86.50	.0148	91.89	.0144	97.16	.0142	102.34	.0140	30
31	87.88	.0152	93.41	.0149	98.84	.0147	104.19	.0144	31
32	89.40	.0156	95.09	.0154	100.70	.0151	106.22	.0150	32
33	91.08	.0161	96.96	.0159	102.76	.0157	108.50	.0156	33
34	92.92	.0167	99.02	.0165	105.04	.0164	111.03	.0164	34
35	94.97	.0173	101.30	.0172	107.59	.0172	113.87	.0172	35
36	97.29	.0181	103.88	.0181	110.47	.0181	117.06	.0181	36
37	99.86	.0189	106.77	.0190	113.69	.0190	120.62	.0191	37
38	102.75	.0199	110.01	.0200	117.30	.0200	124.61	.0202	38
39	106.00	.0210	113.65	.0210	121.33	.0212	129.07	.0214	39
40	109.66	.0221	117.73	.0223	125.85	.0225	134.05	.0227	40
41	113.76	.0234	122.29	.0236	130.90	.0238	139.60	.0241	41
42	118.36	.0248	127.40	.0251	136.54	.0253	145.78	.0256	42
43	123.51	.0263	133.11	.0266	142.82	.0269	152.64	.0273	43
44	129.28	.0280	139.48	.0283	149.81	.0286	160.26	.0290	44
45	135.69	.0298	146.56	.0301	157.55	.0305	168.67	.0309	45
46	142.85	.0317	154.41	.0321	166.11	.0325	177.96	.0329	46
47	150.77	.0337	163.08	.0342	175.55	.0346	188.17	.0349	47
48	159.52	.0359	172.64	.0364	185.92	.0368	199.34	.0371	48
49	169.16	.0383	183.14	.0387	197.27	.0391	211.53	.0394	49
50	179.72	.0408	194.61	.0412	209.63	.0415	224.78	.0417	50
51	191.25	.0434	207.09	.0438	223.06	.0440	239.12	.0441	51
52	203.80	.0462	220.65	.0464	237.59	.0466	254.58	.0465	52
53	217.44	.0490	235.33	.0492	253.27	.0491	271.20	.0489	53
54	232.20	.0520	251.17	.0519	270.12	.0517	288.98	.0512	54
55	248.14	.0550	268.20	.0547	288.16	.0542	307.93	.0533	55
56	265.28	.0580	286.44	.0574	307.39	.0565	328.02	.0552	56
57	283.65	.0609	305.88	.0600	327.77	.0585	349.15	.0567	57
58	303.25	.0640	326.51	.0622	349.23	.0603	371.24	.0579	58
59	324.07	.0662	348.25	.0642	371.67	.0616	394.16	.0586	59
60	346.02	.0684	370.99	.0657	394.97	.0626	417.80	.0590	60
61	368.99	.0702	394.61	.0668	419.00	.0631	442.02	.0591	61
62	392.86	.0716	418.98	.0676	443.64	.0633	466.74	.0589	62
63	417.51	.0725	443.98	.0680	468.79	.0632	491.85	.0582	63
64	442.83	.0732	469.53	.0681	494.37	.0627	517.26	.0574	64

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=13$	Daily difference	$n=14$	Daily difference	$n=15$	Daily difference	$n=16$	Daily difference	x
65	468.73	.0735	495.54	.0677	520.25	.0620	542.88	.0560	65
66	495.10	.0733	521.87	.0672	546.39	.0607	568.53	.0539	66
67	521.85	.0730	548.51	.0660	572.59	.0587	594.00	.0512	67
68	548.96	.0721	575.26	.0640	598.63	.0559	619.03	.0479	68
69	576.23	.0703	601.88	.0613	624.26	.0526	643.45	.0444	69
70	603.44	.0676	628.12	.0580	649.28	.0490	667.17	.0406	70
71	630.33	.0643	653.79	.0543	673.62	.0450	690.06	.0363	71
72	656.72	.0606	678.83	.0502	697.17	.0405	711.94	.0310	72
73	682.58	.0564	703.17	.0454	719.75	.0348	732.47	.0250	73
74	707.87	.0514	726.62	.0394	741.00	.0282	751.31	.0188	74
75	732.40	.0449	748.78	.0321	760.52	.0215	768.36	.0132	75
76	755.67	.0370	769.16	.0246	778.15	.0152	783.68	.0081	76
77	777.12	.0285	787.54	.0176	793.95	.0094	797.38	.0038	77
78	796.44	.0205	803.93	.0110	807.94	.0045	809.58	.0013	78
79	813.56	.0130	818.31	.0053	820.24	.0016	820.82	.0002	79
80	828.44	.0063	830.75	.0019	831.44	.0003	831.55		80
81	841.01	.0023	841.85	.0004	841.99				81
82	852.07	.0004	852.23						82
83	862.33								83

x	$n=17$	Daily difference	$n=18$	Daily difference	$n=19$	Daily difference	$n=20$	Daily difference	x
15	91.42	.0101	95.12	.0098	98.70	.0095	102.15	.0091	15
16	92.00	.0103	95.75	.0099	99.36	.0096	102.87	.0093	16
17	92.62	.0104	96.42	.0100	100.08	.0097	103.63	.0094	17
18	93.30	.0105	97.14	.0102	100.86	.0098	104.45	.0096	18
19	94.03	.0107	97.93	.0103	101.70	.0100	105.36	.0097	19
20	94.81	.0108	98.76	.0105	102.60	.0102	106.33	.0099	20
21	95.66	.0110	99.68	.0107	103.59	.0104	107.39	.0101	21
22	96.58	.0112	100.67	.0109	104.65	.0106	108.52	.0105	22
23	97.56	.0114	101.73	.0111	105.79	.0109	109.75	.0106	23
24	98.63	.0117	102.89	.0114	107.04	.0111	111.09	.0109	24
25	99.79	.0119	104.14	.0116	108.39	.0114	112.55	.0112	25
26	101.06	.0122	105.51	.0120	109.88	.0117	114.16	.0115	26
27	102.44	.0125	107.01	.0123	111.50	.0121	115.92	.0119	27
28	103.95	.0129	108.65	.0127	113.29	.0125	117.86	.0124	28
29	105.61	.0133	110.47	.0131	115.26	.0130	120.01	.0129	29
30	107.44	.0138	112.46	.0136	117.44	.0136	122.39	.0135	30
31	109.46	.0143	114.68	.0142	119.87	.0142	125.05	.0142	31
32	111.71	.0149	117.15	.0149	122.59	.0149	128.03	.0149	32
33	114.21	.0156	119.92	.0156	125.62	.0157	131.34	.0158	33
34	117.02	.0164	123.00	.0164	129.00	.0166	135.04	.0166	34

Single Premium Temporary Insurance

American Experience $1000A^{1}_{x\ n} = 1000(M_x - M_{x+n})/D_x$ 4%

x	$n=17$	Daily difference	$n=18$	Daily difference	$n=19$	Daily difference	$n=20$	Daily difference	x
35	120.15	.0173	126.45	.0173	132.78	.0175	139.15	.0176	35
36	123.67	.0182	130.31	.0183	137.00	.0185	143.75	.0187	36
37	127.59	.0192	134.61	.0194	141.70	.0196	148.85	.0198	37
38	131.98	.0204	139.42	.0206	146.93	.0208	154.53	.0210	38
39	136.87	.0216	144.76	.0219	152.74	.0221	160.80	.0224	39
40	142.33	.0229	150.70	.0232	159.17	.0235	167.75	.0238	40
41	148.39	.0244	157.29	.0247	166.30	.0250	175.42	.0253	41
42	155.12	.0260	164.59	.0263	174.17	.0266	183.88	.0269	42
43	162.59	.0276	172.66	.0279	182.85	.0283	193.17	.0286	43
44	170.84	.0294	181.56	.0297	192.40	.0300	203.36	.0303	44
45	179.94	.0313	191.34	.0316	202.86	.0319	214.48	.0322	45
46	189.95	.0332	202.07	.0335	214.29	.0338	226.61	.0339	46
47	200.91	.0352	213.77	.0355	226.74	.0357	239.77	.0358	47
48	212.88	.0374	226.52	.0376	240.24	.0377	253.99	.0376	48
49	225.90	.0396	240.35	.0397	254.83	.0396	269.30	.0395	49
50	240.00	.0418	255.26	.0418	270.51	.0416	285.69	.0412	50
51	255.21	.0441	271.29	.0438	287.29	.0435	303.15	.0427	51
52	271.55	.0463	288.44	.0458	305.17	.0451	321.64	.0441	52
53	289.04	.0484	306.71	.0476	324.10	.0466	341.09	.0450	53
54	307.67	.0504	326.06	.0492	344.02	.0477	361.42	.0458	54
55	327.40	.0521	346.41	.0505	364.83	.0484	382.51	.0461	55
56	348.17	.0535	367.68	.0513	386.41	.0489	404.25	.0461	56
57	369.86	.0545	389.74	.0518	408.66	.0489	426.52	.0459	57
58	392.36	.0551	412.47	.0520	431.45	.0487	449.24	.0453	58
59	415.56	.0554	435.77	.0519	454.71	.0482	472.31	.0445	59
60	439.34	.0553	459.54	.0512	478.31	.0474	495.61	.0434	60
61	463.60	.0550	483.66	.0507	502.15	.0464	519.08	.0419	61
62	488.23	.0542	508.03	.0497	526.16	.0449	542.53	.0399	62
63	513.11	.0533	532.58	.0482	550.16	.0428	565.78	.0374	63
64	538.21	.0518	557.13	.0461	573.95	.0402	588.64	.0345	64
65	563.31	.0498	581.48	.0434	597.33	.0373	610.93	.0315	65
66	588.22	.0470	605.39	.0404	620.12	.0341	632.57	.0283	66
67	612.68	.0439	628.70	.0371	642.24	.0308	653.47	.0248	67
68	636.53	.0405	651.32	.0336	663.57	.0271	673.45	.0207	68
69	659.67	.0369	673.12	.0297	683.95	.0227	692.25	.0163	69
70	681.99	.0327	693.94	.0251	703.09	.0180	709.66	.0120	70
71	703.30	.0278	713.45	.0199	720.73	.0133	725.59	.0082	71
72	723.26	.0222	731.38	.0148	736.80	.0091	740.13	.0049	72
73	741.59	.0167	747.67	.0102	751.41	.0055	753.41	.0022	73
74	758.19	.0116	762.41	.0062	764.68	.0025	765.60	.0007	74
75	773.17	.0071	775.75	.0029	776.80	.0008	777.11	.0001	75
76	786.64	.0033	787.85	.0010	788.21	.0001	788.27		76
77	798.77	.0012	799.19	.0001	799.26				77
78	810.06	.0002	810.14						78
79	820.91								79

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,n} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=21$	Daily difference	$n=22$	Daily difference	$n=23$	Daily difference	$n=24$	Daily difference	x
15	105.48	.0089	108.72	.0085	111.84	.0083	114.88	.0081	15
16	106.25	.0090	109.53	.0087	112.70	.0085	115.81	.0082	16
17	107.06	.0092	110.40	.0089	113.63	.0086	116.78	.0084	17
18	107.95	.0093	111.33	.0091	114.64	.0088	117.84	.0086	18
19	108.91	.0095	112.37	.0092	115.73	.0090	119.02	.0087	19
20	109.95	.0096	113.47	.0094	116.91	.0092	120.26	.0090	20
21	111.08	.0099	114.69	.0096	118.20	.0095	121.65	.0093	21
22	112.30	.0101	115.99	.0099	119.60	.0097	123.14	.0096	22
23	113.62	.0104	117.41	.0102	121.12	.0100	124.78	.0099	23
24	115.06	.0107	118.95	.0105	122.79	.0104	126.57	.0102	24
25	116.64	.0110	120.65	.0109	124.62	.0108	128.55	.0107	25
26	118.37	.0114	122.53	.0113	126.64	.0112	130.74	.0112	26
27	120.28	.0118	124.59	.0118	128.89	.0117	133.17	.0118	27
28	122.38	.0123	126.88	.0123	131.38	.0123	135.87	.0124	28
29	124.73	.0129	129.44	.0129	134.15	.0130	138.88	.0130	29
30	127.33	.0136	132.28	.0136	137.23	.0136	142.21	.0138	30
31	130.24	.0142	135.44	.0143	140.66	.0144	145.93	.0145	31
32	133.48	.0150	138.96	.0151	144.48	.0153	150.05	.0154	32
33	137.09	.0158	142.88	.0160	148.73	.0162	154.63	.0164	33
34	141.11	.0168	147.24	.0170	153.43	.0172	159.69	.0174	34
35	145.58	.0178	152.08	.0180	158.65	.0182	165.30	.0184	35
36	150.57	.0189	157.46	.0191	164.44	.0193	171.50	.0196	36
37	156.09	.0201	163.41	.0203	170.82	.0206	178.33	.0208	37
38	162.21	.0213	169.99	.0216	177.87	.0219	185.85	.0221	38
39	168.97	.0227	177.24	.0230	185.62	.0232	194.09	.0235	39
40	176.44	.0241	185.23	.0244	194.13	.0246	203.12	.0249	40
41	184.66	.0256	194.00	.0259	203.45	.0261	212.97	.0263	41
42	193.69	.0272	203.61	.0274	213.62	.0277	223.71	.0278	42
43	203.59	.0288	214.11	.0291	224.71	.0292	235.37	.0293	43
44	214.41	.0306	225.56	.0307	236.76	.0308	247.98	.0308	44
45	226.20	.0323	237.97	.0324	249.78	.0323	261.58	.0322	45
46	239.00	.0340	251.41	.0340	263.82	.0338	276.17	.0335	46
47	252.83	.0358	265.89	.0356	278.88	.0352	291.74	.0347	47
48	267.73	.0375	281.41	.0371	294.95	.0365	308.28	.0357	48
49	283.70	.0391	297.97	.0385	312.01	.0376	325.73	.0364	49
50	300.72	.0406	315.52	.0396	329.97	.0384	343.97	.0368	50
51	318.75	.0418	333.99	.0405	348.76	.0388	362.93	.0370	51
52	337.72	.0427	353.30	.0410	368.26	.0390	382.50	.0368	52
53	357.55	.0433	373.35	.0412	388.39	.0389	402.59	.0364	53
54	378.13	.0436	394.03	.0411	409.04	.0385	423.10	.0358	54
55	399.34	.0435	415.23	.0408	430.11	.0379	443.96	.0350	55
56	421.08	.0432	436.86	.0402	451.53	.0370	465.05	.0339	56
57	443.26	.0427	458.83	.0393	473.18	.0359	486.31	.0325	57
58	465.79	.0418	481.03	.0382	494.99	.0346	507.60	.0307	58
59	488.54	.0407	503.40	.0368	516.82	.0327	528.75	.0285	59
60	511.46	.0391	525.77	.0348	538.49	.0304	549.59	.0261	60
61	534.37	.0379	547.96	.0326	559.82	.0279	570.00	.0235	61
62	557.09	.0348	569.79	.0299	580.69	.0252	589.89	.0209	62
63	579.42	.0321	591.12	.0271	601.00	.0225	609.20	.0181	63
64	601.23	.0292	611.87	.0242	620.69	.0195	627.80	.0149	64

Single Premium Temporary Insurance

American Experience

$$1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$$

4%

x	$n=21$	Daily difference	$n=22$	Daily difference	$n=23$	Daily difference	$n=24$	Daily difference	x
65	622.42	.0261	631.95	.0210	639.62	.0161	645.50	.0116	65
66	642.90	.0228	651.21	.0175	657.58	.0125	662.15	.0084	66
67	662.51	.0190	669.44	.0136	674.41	.0091	677.73	.0056	67
68	681.02	.0149	686.45	.0099	690.07	.0061	692.29	.0033	68
69	698.21	.0109	702.18	.0067	704.62	.0036	705.93	.0015	69
70	714.04	.0074	716.73	.0039	718.17	.0016	718.76	.0005	70
71	728.57	.0044	730.17	.0018	730.82	.0005	731.02	.0001	71
72	741.91	.0020	742.64	.0006	742.86	.0001	742.89		72
73	754.22	.0007	754.47	.0001	754.51				73
74	765.87	.0001	765.92						74
75	777.16								75

x	$n=25$	Daily difference	$n=26$	Daily difference	$n=27$	Daily difference	$n=28$	Daily difference	x
15	117.84	.0078	120.70	.0076	123.47	.0075	126.20	.0073	15
16	118.81	.0080	121.71	.0078	124.57	.0076	127.34	.0075	16
17	119.83	.0082	122.83	.0079	125.73	.0079	128.60	.0077	17
18	120.98	.0084	124.03	.0082	127.03	.0080	129.96	.0079	18
19	122.21	.0086	125.35	.0084	128.43	.0083	131.46	.0082	19
20	123.55	.0089	126.79	.0087	129.96	.0086	133.09	.0085	20
21	125.03	.0091	128.36	.0090	131.64	.0089	134.89	.0089	21
22	126.63	.0094	130.07	.0093	133.48	.0093	136.87	.0093	22
23	128.38	.0098	131.96	.0097	135.51	.0097	139.06	.0097	23
24	130.31	.0102	134.04	.0102	137.76	.0102	141.48	.0102	24
25	132.45	.0107	136.35	.0107	140.25	.0107	144.16	.0108	25
26	134.82	.0112	138.91	.0112	143.01	.0113	147.13	.0114	26
27	137.46	.0118	141.76	.0118	146.08	.0119	150.43	.0120	27
28	140.38	.0124	144.91	.0125	149.47	.0126	154.07	.0128	28
29	143.63	.0131	148.41	.0132	153.24	.0134	158.12	.0135	29
30	147.23	.0139	152.30	.0140	157.41	.0142	162.58	.0143	30
31	151.23	.0147	156.60	.0148	162.02	.0150	167.51	.0152	31
32	155.68	.0156	161.37	.0158	167.12	.0160	172.95	.0162	32
33	160.60	.0165	166.63	.0168	172.75	.0170	178.94	.0172	33
34	166.03	.0176	172.44	.0178	178.93	.0180	185.51	.0183	34
35	172.03	.0187	178.84	.0189	185.75	.0191	192.73	.0193	35
36	178.65	.0198	185.89	.0201	193.22	.0203	200.62	.0205	36
37	185.93	.0211	193.62	.0213	201.39	.0215	209.23	.0217	37
38	193.92	.0223	202.07	.0226	210.30	.0227	218.60	.0228	38
39	202.66	.0237	211.30	.0238	220.00	.0240	228.76	.0240	39
40	212.19	.0251	221.34	.0252	230.53	.0252	239.74	.0252	40
41	222.58	.0264	232.23	.0265	241.91	.0265	251.58	.0264	41
42	233.85	.0279	244.02	.0278	254.18	.0277	264.29	.0274	42
43	246.05	.0293	256.73	.0291	267.35	.0288	277.87	.0284	43
44	259.20	.0306	270.37	.0303	281.43	.0298	291.31	.0292	44

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,n} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=25$	Daily difference	$n=26$	Daily difference	$n=27$	Daily difference	$n=28$	Daily difference	x
45	273.31	.0319	284.94	.0314	296.39	.0306	307.57	.0297	45
46	288.39	.0330	300.43	.0322	312.19	.0312	323.58	.0300	46
47	304.41	.0339	316.78	.0329	328.77	.0315	340.27	.0300	47
48	321.31	.0346	333.92	.0332	346.03	.0316	357.56	.0298	48
49	339.01	.0349	351.76	.0333	363.91	.0314	375.37	.0294	49
50	357.41	.0351	370.21	.0331	382.29	.0310	393.60	.0289	50
51	376.42	.0349	389.16	.0327	401.09	.0304	412.19	.0280	51
52	395.94	.0345	408.54	.0321	420.25	.0296	431.04	.0271	52
53	415.89	.0339	428.26	.0312	439.66	.0286	450.10	.0258	53
54	436.18	.0330	448.24	.0302	459.27	.0273	469.24	.0243	54
55	456.72	.0320	468.40	.0289	478.95	.0257	488.33	.0224	55
56	477.43	.0306	488.61	.0272	498.55	.0238	507.22	.0204	56
57	498.17	.0289	508.72	.0252	517.92	.0216	525.82	.0183	57
58	518.80	.0268	528.58	.0230	536.97	.0194	544.06	.0161	58
59	539.16	.0245	548.09	.0207	555.63	.0172	561.89	.0138	59
60	559.11	.0221	567.16	.0183	573.83	.0147	579.20	.0113	60
61	578.59	.0195	585.72	.0157	591.46	.0121	595.86	.0087	61
62	597.53	.0168	603.67	.0129	608.39	.0093	611.77	.0062	62
63	615.80	.0139	620.86	.0099	624.49	.0066	626.91	.0041	63
64	633.24	.0107	637.15	.0072	639.76	.0044	641.36	.0024	64
65	649.72	.0077	652.54	.0047	654.27	.0025	655.19	.0010	65
66	665.20	.0052	667.08	.0027	668.08	.0011	668.49	.0003	66
67	679.76	.0030	680.85	.0012	681.30	.0004	681.43	.0001	67
68	693.48	.0013	693.97	.0004	694.11	.0001	694.14		68
69	706.46	.0004	706.62	.0001	706.65				69
70	718.93	.0001	718.96						70
71	731.05								71

x	$n=29$	Daily difference	$n=30$	Daily difference	$n=31$	Daily difference	$n=32$	Daily difference	x
15	128.85	.0071	131.45	.0070	134.00	.0069	136.51	.0068	15
16	130.07	.0073	132.74	.0072	135.38	.0071	137.97	.0070	16
17	131.40	.0076	134.16	.0075	136.89	.0074	139.56	.0074	17
18	132.84	.0078	135.70	.0077	138.52	.0077	141.33	.0077	18
19	134.44	.0081	137.40	.0081	140.34	.0081	143.28	.0081	19
20	136.20	.0084	139.28	.0084	142.36	.0084	145.43	.0084	20
21	138.13	.0088	141.35	.0089	144.58	.0089	147.82	.0089	21
22	140.25	.0093	143.64	.0093	147.03	.0093	150.44	.0094	22
23	142.60	.0098	146.16	.0098	149.74	.0099	153.34	.0099	23
24	145.21	.0102	148.95	.0104	152.73	.0104	156.54	.0105	24
25	148.09	.0109	152.05	.0109	156.04	.0110	160.07	.0112	25
26	151.28	.0115	155.47	.0116	159.70	.0117	163.98	.0118	26
27	154.82	.0121	159.25	.0123	163.74	.0124	168.27	.0126	27
28	158.73	.0129	163.43	.0130	168.18	.0132	173.00	.0134	28
29	163.05	.0137	168.04	.0138	173.09	.0140	178.20	.0142	29
30	167.81	.0145	173.11	.0147	178.47	.0149	183.91	.0150	30
31	173.07	.0154	178.69	.0156	184.39	.0158	190.15	.0160	31
32	178.85	.0164	184.83	.0165	190.87	.0167	196.98	.0169	32
33	185.21	.0174	191.55	.0176	197.96	.0177	204.42	.0179	33
34	192.17	.0184	198.89	.0186	205.68	.0187	212.51	.0189	34

Single Premium Temporary Insurance

American Experience $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ 4%

x	$n=29$	Daily difference	$n=30$	Daily difference	$n=31$	Daily difference	$n=32$	Daily difference	x
35	199.78	.0195	206.90	.0196	214.07	.0198	221.28	.0198	35
36	208.09	.0206	215.62	.0207	223.19	.0208	230.77	.0208	36
37	217.13	.0218	225.07	.0218	233.03	.0218	240.99	.0217	37
38	226.93	.0229	235.29	.0229	243.64	.0228	251.96	.0226	38
39	237.53	.0240	246.30	.0239	255.02	.0237	263.67	.0233	39
40	248.95	.0251	258.11	.0249	267.19	.0245	276.12	.0239	40
41	261.20	.0261	270.73	.0257	280.12	.0251	289.28	.0243	41
42	274.30	.0270	284.16	.0264	293.79	.0255	303.11	.0246	42
43	288.23	.0277	298.35	.0269	308.15	.0258	317.55	.0246	43
44	302.95	.0282	313.25	.0271	323.14	.0258	332.55	.0244	44
45	318.40	.0285	328.79	.0271	338.69	.0256	348.03	.0240	45
46	334.52	.0285	344.92	.0269	354.75	.0252	363.96	.0235	46
47	351.22	.0283	361.56	.0265	371.25	.0247	380.26	.0227	47
48	368.44	.0279	378.64	.0260	388.12	.0239	396.86	.0219	48
49	386.11	.0273	396.09	.0252	405.30	.0231	413.72	.0209	49
50	404.13	.0266	413.83	.0243	422.71	.0220	430.73	.0195	50
51	422.42	.0256	431.78	.0232	440.24	.0206	447.76	.0180	51
52	440.93	.0244	449.85	.0218	457.79	.0190	464.71	.0163	52
53	459.53	.0230	467.91	.0201	475.23	.0172	481.50	.0145	53
54	478.10	.0212	485.84	.0182	492.47	.0153	498.07	.0127	54
55	496.51	.0192	503.53	.0162	509.46	.0135	514.38	.0109	55
56	514.66	.0172	520.95	.0143	526.16	.0115	530.36	.0088	56
57	532.49	.0152	538.02	.0122	542.47	.0094	545.89	.0067	57
58	549.94	.0129	554.67	.0099	558.30	.0071	560.90	.0048	58
59	566.92	.0106	570.79	.0076	573.56	.0050	575.40	.0031	59
60	583.32	.0081	586.27	.0054	588.24	.0033	589.45	.0018	60
61	599.02	.0058	601.13	.0035	602.42	.0019	603.11	.0008	61
62	614.02	.0038	615.41	.0020	616.15	.0008	616.45	.0002	62
63	628.40	.0022	629.19	.0009	629.52	.0002	629.61	.0001	63
64	642.22	.0010	642.57	.0003	642.67	.0001	642.69		64
65	655.57	.0003	655.68	.0001	655.70				65
66	668.61	.0001	668.63						66
67	681.45								67

x	$n=33$	Daily difference	$n=34$	Daily difference	$n=35$	Daily difference	$n=36$	Daily difference	x
15	139.00	.0067	141.44	.0067	143.88	.0067	146.32	.0067	15
16	140.54	.0070	143.10	.0070	145.65	.0070	148.20	.0070	16
17	142.26	.0073	144.93	.0073	147.59	.0074	150.28	.0074	17
18	144.13	.0077	146.93	.0077	149.74	.0077	152.56	.0078	18
19	146.22	.0081	149.17	.0081	152.12	.0082	155.11	.0082	19
20	148.51	.0085	151.62	.0086	154.75	.0087	157.91	.0087	20
21	151.07	.0090	154.35	.0091	157.66	.0092	161.00	.0092	21
22	153.88	.0095	157.34	.0096	160.84	.0097	164.38	.0098	22
23	156.97	.0101	160.64	.0102	164.35	.0103	168.11	.0104	23
24	160.39	.0107	164.28	.0108	168.21	.0109	172.20	.0110	24

Single Premium Temporary Insurance

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=33$	Daily difference	$n=34$	Daily difference	$n=35$	Daily difference	$n=36$	Daily difference	x
25	164.15	.0113	168.28	.0115	172.46	.0116	176.69	.0117	25
26	168.30	.0120	172.68	.0122	177.12	.0123	181.61	.0125	26
27	172.87	.0127	177.52	.0129	182.23	.0130	186.99	.0132	27
28	177.88	.0135	182.82	.0137	187.81	.0138	192.86	.0140	28
29	183.38	.0144	188.62	.0145	193.91	.0147	199.26	.0147	29
30	189.40	.0152	194.95	.0154	200.56	.0155	206.20	.0156	30
31	195.98	.0161	201.85	.0162	207.78	.0163	213.73	.0164	31
32	203.15	.0170	209.36	.0171	215.60	.0172	221.86	.0172	32
33	210.94	.0179	217.49	.0180	224.06	.0180	230.62	.0179	33
34	219.39	.0189	226.27	.0189	233.16	.0188	240.01	.0186	34
35	228.51	.0198	235.74	.0197	242.93	.0195	250.05	.0192	35
36	238.35	.0207	245.90	.0205	253.37	.0202	260.73	.0197	36
37	248.91	.0215	256.75	.0212	264.47	.0207	272.01	.0200	37
38	260.19	.0222	268.29	.0217	276.21	.0210	283.88	.0202	38
39	272.18	.0228	280.49	.0221	288.54	.0212	296.26	.0202	39
40	284.85	.0232	293.30	.0223	301.42	.0212	309.14	.0200	40
41	298.16	.0234	306.68	.0223	314.80	.0210	322.46	.0197	41
42	312.07	.0234	320.59	.0220	328.63	.0207	336.17	.0192	42
43	326.51	.0232	334.96	.0217	342.88	.0202	350.25	.0186	43
44	341.44	.0228	349.76	.0212	357.50	.0196	364.64	.0179	44
45	356.79	.0223	364.93	.0206	372.43	.0188	379.30	.0170	45
46	372.52	.0216	380.41	.0198	387.64	.0179	394.16	.0159	46
47	388.56	.0208	396.16	.0188	403.02	.0167	409.13	.0146	47
48	404.86	.0199	412.09	.0176	418.51	.0154	424.12	.0132	48
49	421.34	.0185	428.10	.0162	434.01	.0139	439.07	.0117	49
50	437.86	.0170	444.08	.0146	449.42	.0124	453.93	.0102	50
51	454.32	.0154	459.95	.0130	464.71	.0108	468.65	.0087	51
52	470.65	.0138	475.67	.0114	479.83	.0092	483.18	.0070	52
53	486.80	.0121	491.20	.0097	494.74	.0074	497.45	.0053	53
54	502.72	.0102	506.46	.0079	509.33	.0056	511.39	.0038	54
55	518.34	.0083	521.38	.0060	523.56	.0040	525.01	.0025	55
56	533.57	.0063	535.88	.0042	537.42	.0026	538.37	.0014	56
57	548.34	.0045	549.97	.0027	550.97	.0015	551.51	.0006	57
58	562.64	.0029	563.71	.0016	564.28	.0006	564.51	.0002	58
59	576.54	.0017	577.15	.0007	577.40	.0002	577.47	.0000	59
60	590.10	.0007	590.37	.0002	590.45	.0000	590.46		60
61	603.39	.0002	603.48	.0001	603.49				61
62	616.54	.0001	616.56						62
63	629.63								63

American Experience

$1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$

4%

x	$n=37$	Daily difference	$n=38$	Daily difference	$n=39$	Daily difference	$n=40$	Daily difference	x
15	148.75	.0066	151.17	.0068	153.65	.0068	156.13	.0068	15
16	150.76	.0070	153.31	.0071	155.83	.0072	158.53	.0073	16
17	152.99	.0074	155.70	.0075	158.43	.0076	161.20	.0077	17
18	155.42	.0079	158.29	.0080	161.20	.0080	164.12	.0082	18
19	158.12	.0083	161.16	.0084	164.24	.0085	167.35	.0086	19
20	161.10	.0088	164.31	.0089	167.57	.0090	170.86	.0092	20
21	164.37	.0094	167.79	.0095	171.25	.0096	174.75	.0097	21
22	167.97	.0098	171.59	.0099	175.27	.0101	178.99	.0102	22
23	171.91	.0105	175.76	.0107	179.66	.0108	183.60	.0109	23
24	176.23	.0112	180.32	.0113	184.45	.0114	188.63	.0116	24
25	180.97	.0119	185.31	.0120	189.69	.0121	194.11	.0122	25
26	186.16	.0126	190.75	.0127	195.38	.0128	200.05	.0128	26
27	191.81	.0133	196.66	.0134	201.56	.0135	206.48	.0135	27
28	197.96	.0141	203.09	.0141	208.25	.0142	213.43	.0142	28
29	204.64	.0148	210.05	.0149	215.48	.0149	220.90	.0148	29
30	211.88	.0156	217.57	.0156	223.26	.0155	228.91	.0154	30
31	219.70	.0163	225.66	.0163	231.60	.0161	237.47	.0159	31
32	228.12	.0170	234.34	.0169	240.51	.0166	246.58	.0162	32
33	237.15	.0177	243.62	.0175	249.99	.0170	256.21	.0165	33
34	246.80	.0183	253.48	.0179	260.00	.0176	266.33	.0166	34
35	257.06	.0187	263.90	.0182	270.54	.0174	276.90	.0166	35
36	267.91	.0191	274.87	.0183	281.55	.0174	287.91	.0165	36
37	279.32	.0192	286.33	.0183	293.00	.0173	299.30	.0162	37
38	291.24	.0192	298.24	.0181	304.86	.0170	311.06	.0158	38
39	303.62	.0190	310.56	.0178	317.07	.0166	323.12	.0153	39
40	316.44	.0187	323.27	.0174	329.62	.0161	335.48	.0147	40
41	329.63	.0183	336.31	.0169	342.46	.0154	348.09	.0139	41
42	343.18	.0177	349.65	.0162	355.56	.0146	360.90	.0130	42
43	357.04	.0170	363.26	.0154	368.87	.0137	373.86	.0120	43
44	371.17	.0162	377.07	.0144	382.32	.0126	386.90	.0107	44
45	385.50	.0151	391.02	.0132	395.83	.0113	399.96	.0096	45
46	399.96	.0139	405.02	.0119	409.36	.0101	413.03	.0084	46
47	414.45	.0125	419.02	.0106	422.88	.0088	426.08	.0071	47
48	428.93	.0111	432.99	.0092	436.36	.0075	439.08	.0057	48
49	443.35	.0097	446.90	.0078	449.76	.0060	451.95	.0043	49
50	457.67	.0082	460.68	.0063	462.99	.0045	464.64	.0030	50
51	471.83	.0067	474.26	.0048	476.01	.0032	477.17	.0020	51
52	485.75	.0051	487.60	.0034	488.83	.0021	489.58	.0011	52
53	499.40	.0035	500.69	.0022	501.49	.0012	501.92	.0005	53
54	512.76	.0023	513.61	.0012	514.06	.0005	514.24	.0002	54
55	525.91	.0013	526.38	.0005	526.58	.0002	526.64	.0000	55
56	538.88	.0005	539.08	.0002	539.14	.0000	539.15		56
57	551.73	.0002	551.80	.0000	551.81				57
58	564.58	.0000	564.59						58
59	577.48								59

4% $1000A^{1}_{x\,n} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=41$	Daily difference	$n=42$	Daily difference	$n=43$	Daily difference	$n=44$	Daily difference	x
15	158.61	.0069	161.14	.0070	163.69	.0070	166.26	.0072	15
16	161.19	.0073	163.86	.0074	166.56	.0075	169.30	.0076	16
17	164.00	.0078	166.83	.0079	169.71	.0079	172.61	.0080	17
18	167.10	.0082	170.10	.0083	173.14	.0084	176.22	.0085	18
19	170.50	.0087	173.69	.0088	176.90	.0090	180.19	.0090	19
20	174.21	.0093	177.57	.0094	181.02	.0095	184.50	.0096	20
21	178.30	.0098	181.89	.0099	185.51	.0101	189.18	.0101	21
22	182.75	.0103	186.55	.0104	190.38	.0105	194.25	.0106	22
23	187.59	.0110	191.61	.0111	195.66	.0112	199.73	.0112	23
24	192.85	.0116	197.10	.0117	201.37	.0117	205.65	.0117	24
25	198.56	.0123	203.04	.0123	207.52	.0123	212.01	.0122	25
26	204.74	.0129	209.45	.0129	214.15	.0128	218.83	.0127	26
27	211.42	.0135	216.35	.0134	221.25	.0133	226.11	.0131	27
28	218.60	.0141	223.74	.0140	228.84	.0137	233.85	.0135	28
29	226.30	.0146	231.64	.0144	236.90	.0141	242.04	.0136	29
30	234.52	.0151	240.04	.0148	245.43	.0143	250.65	.0137	30
31	246.79	.0155	248.91	.0150	254.39	.0144	259.65	.0137	31
32	252.51	.0157	258.25	.0151	263.77	.0144	269.01	.0136	32
33	262.23	.0159	268.02	.0151	273.52	.0142	278.72	.0133	33
34	272.39	.0158	278.17	.0149	283.62	.0140	288.73	.0130	34
35	282.96	.0157	288.69	.0147	294.05	.0136	299.03	.0126	35
36	293.92	.0154	299.54	.0143	304.77	.0132	309.60	.0121	36
37	305.21	.0150	310.70	.0139	315.76	.0127	320.39	.0115	37
38	316.82	.0146	322.13	.0133	326.99	.0121	331.39	.0107	38
39	328.70	.0140	333.81	.0126	338.42	.0112	342.52	.0098	39
40	340.84	.0133	345.68	.0118	349.99	.0103	353.74	.0089	40
41	353.17	.0124	357.70	.0108	361.64	.0093	365.03	.0078	41
42	365.65	.0114	369.80	.0097	373.35	.0082	376.36	.0068	42
43	378.22	.0102	381.95	.0087	385.11	.0072	387.73	.0058	43
44	390.82	.0091	394.14	.0075	396.89	.0061	399.11	.0047	44
45	403.45	.0079	406.34	.0064	408.67	.0049	410.46	.0035	45
46	416.08	.0067	418.53	.0051	420.40	.0037	421.75	.0025	46
47	428.66	.0054	430.64	.0039	432.05	.0026	433.00	.0016	47
48	441.16	.0041	442.65	.0027	443.64	.0017	444.25	.0009	48
49	453.52	.0029	454.57	.0018	455.21	.0010	455.56	.0004	49
50	465.75	.0019	466.43	.0010	466.79	.0004	466.94	.0001	50
51	477.89	.0010	478.27	.0004	478.43	.0001	478.47	.0000	51
52	489.99	.0004	490.15	.0001	490.20	.0000	490.21		52
53	502.09	.0002	502.15	.0000	502.15				53
54	514.30	.0000	514.31						54
55	526.65								55

Single Premium Temporary Insurance

American Experience

$$1000\,A^{1}_{x\,\overline{n}|} = 1000\,(M_x - M_{x+n})/D_x$$

4%

x	$n=45$	Daily difference	$n=46$	Daily difference	$n=47$	Daily difference	$n=48$	Daily difference	x
15	168.88	.0072	171.50	.0073	174.20	.0074	176.71	.0075	15
16	172.06	.0077	174.86	.0078	177.70	.0079	180.57	.0079	16
17	175.53	.0082	178.51	.0082	181.51	.0083	184.54	.0084	17
18	179.34	.0086	182.48	.0087	185.65	.0088	188.86	.0088	18
19	183.49	.0091	186.81	.0092	190.18	.0092	193.55	.0093	19
20	187.96	.0096	191.50	.0097	195.03	.0097	198.58	.0097	20
21	192.86	.0102	196.57	.0102	200.29	.0102	204.00	.0101	21
22	198.13	.0107	202.03	.0107	205.92	.0106	209.80	.0105	22
23	203.82	.0112	207.90	.0111	211.96	.0110	215.98	.0109	23
24	209.93	.0116	214.18	.0116	218.40	.0114	222.55	.0111	24
25	216.47	.0121	220.89	.0119	225.25	.0116	229.50	.0113	25
26	223.47	.0125	228.03	.0122	232.49	.0118	236.80	.0114	26
27	230.90	.0128	235.57	.0124	240.10	.0119	244.44	.0114	27
28	238.76	.0130	243.50	.0125	248.06	.0119	252.40	.0112	28
29	247.02	.0131	251.80	.0125	256.35	.0118	260.64	.0110	29
30	255.66	.0131	260.43	.0123	264.93	.0116	269.15	.0108	30
31	264.65	.0129	269.37	.0121	273.80	.0113	277.91	.0104	31
32	273.97	.0127	278.61	.0118	282.93	.0109	286.91	.0100	32
33	283.59	.0124	288.12	.0114	292.29	.0105	296.11	.0084	33
34	293.48	.0120	297.86	.0110	301.87	.0099	305.49	.0088	34
35	303.63	.0115	307.83	.0104	311.63	.0093	315.01	.0081	35
36	314.01	.0109	318.00	.0097	321.54	.0085	324.63	.0073	36
37	324.58	.0102	328.30	.0089	331.54	.0076	334.33	.0064	37
38	335.29	.0093	338.70	.0080	341.62	.0068	344.09	.0056	38
39	346.09	.0084	349.16	.0071	351.76	.0059	353.91	.0047	39
40	356.97	.0075	359.69	.0062	361.95	.0050	363.76	.0038	40
41	367.89	.0065	370.26	.0052	372.17	.0040	373.63	.0029	41
42	378.85	.0055	380.86	.0042	382.39	.0028	383.41	.0023	42
43	389.83	.0044	391.45	.0032	392.61	.0021	393.38	.0013	43
44	400.81	.0033	402.03	.0022	402.84	.0014	403.34	.0007	44
45	411.74	.0023	412.59	.0015	413.12	.0008	413.40	.0003	45
46	422.65	.0015	423.20	.0008	423.50	.0003	423.62	.0001	46
47	433.58	.0008	433.89	.0004	434.02	.0001	434.06	.0000	47
48	444.58	.0004	444.72	.0001	444.76	.0000	444.76		48
49	455.70	.0001	455.74	.0000	455.74				49
50	466.98	.0000	466.99						50
51	478.48								51

x	$n=49$	Daily difference	$n=50$	Daily difference	$n=51$	Daily difference	$n=52$	Daily difference	x
15	179.64	.0076	182.40	.0076	185.18	.0077	187.98	.0077	15
16	183.47	.0080	186.38	.0081	189.30	.0081	192.25	.0081	16
17	187.61	.0084	190.68	.0084	193.76	.0084	196.82	.0084	17
18	192.09	.0088	195.30	.0088	198.53	.0088	201.75	.0087	18
19	196.93	.0093	200.31	.0092	203.66	.0092	207.00	.0090	19
20	202.13	.0096	205.65	.0096	209.15	.0094	212.58	.0092	20
21	207.70	.0100	211.36	.0099	214.96	.0096	218.48	.0093	21
22	213.63	.0104	217.41	.0101	221.10	.0098	224.67	.0094	22
23	219.94	.0106	223.81	.0102	227.55	.0099	231.15	.0094	23
24	226.61	.0107	230.53	.0103	234.30	.0098	237.89	.0093	24

4% $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ American Experience

x	$n=49$	Daily difference	$n=50$	Daily difference	$n=51$	Daily difference	$n=52$	Daily difference	x
25	233.61	.0109	237.57	.0106	241.33	.0097	244.88	.0091	25
26	240.95	.0108	244.89	.0102	248.62	.0096	252.11	.0089	26
27	248.59	.0107	252.49	.0100	256.15	.0093	259.55	.0086	27
28	256.49	.0105	260.33	.0098	263.90	.0090	267.18	.0082	28
29	264.66	.0102	268.40	.0094	271.85	.0087	275.01	.0078	29
30	273.08	.0099	276.69	.0091	280.00	.0082	282.99	.0073	30
31	281.71	.0095	285.18	.0086	288.32	.0076	291.11	.0067	31
32	290.55	.0090	293.84	.0080	296.76	.0070	299.32	.0060	32
33	299.56	.0084	302.63	.0073	305.31	.0063	307.61	.0053	33
34	308.71	.0077	311.52	.0066	313.93	.0056	315.97	.0046	34
35	317.96	.0069	320.49	.0058	322.62	.0049	324.39	.0039	35
36	327.29	.0061	329.53	.0051	331.39	.0041	332.88	.0032	36
37	336.68	.0053	338.63	.0043	340.20	.0033	341.41	.0024	37
38	346.14	.0045	347.79	.0035	349.05	.0025	349.96	.0017	38
39	355.64	.0036	356.97	.0026	357.92	.0017	358.55	.0011	39
40	365.16	.0027	366.16	.0018	366.83	.0011	367.24	.0006	40
41	374.68	.0019	375.38	.0012	375.81	.0006	376.04	.0003	41
42	384.23	.0012	384.68	.0007	384.93	.0003	385.03	.0001	42
43	393.86	.0007	394.11	.0003	394.22	.0001	394.25	.0000	43
44	404.35	.0003	403.71	.0001	403.75	.0000	403.75		44
45	413.51	.0001	413.55	.0000	413.55				45
46	423.65	.0000	423.66						46
47	434.06								47

x	$n=53$	Daily difference	$n=54$	Daily difference	$n=55$	Daily difference	$n=56$	Daily difference	x
15	190.78	.0077	193.58	.0076	196.37	.0076	199.13	.0075	15
16	195.20	.0080	198.11	.0079	201.00	.0078	203.85	.0076	16
17	199.90	.0083	202.93	.0081	205.90	.0080	208.81	.0079	17
18	204.93	.0085	208.03	.0084	211.11	.0081	214.07	.0078	18
19	210.29	.0088	213.50	.0085	216.60	.0081	219.57	.0078	19
20	215.94	.0089	219.20	.0085	222.32	.0082	225.30	.0076	20
21	221.89	.0090	225.16	.0085	228.28	.0080	231.22	.0076	21
22	228.11	.0089	231.37	.0084	234.45	.0079	237.34	.0074	22
23	234.57	.0089	237.81	.0083	240.84	.0077	243.65	.0071	23
24	241.28	.0087	244.46	.0081	247.41	.0075	250.13	.0068	24
25	248.21	.0085	251.31	.0078	254.16	.0072	256.77	.0065	25
26	255.35	.0082	258.34	.0075	261.08	.0068	263.56	.0060	26
27	262.68	.0079	265.55	.0071	268.15	.0063	270.45	.0055	27
28	270.19	.0075	272.91	.0066	275.33	.0058	277.44	.0050	28
29	277.86	.0070	280.40	.0061	282.61	.0052	284.51	.0044	29
30	285.65	.0064	287.97	.0055	289.96	.0046	291.64	.0038	30
31	293.54	.0057	295.63	.0048	397.39	.0040	298.85	.0032	31
32	301.51	.0048	303.36	.0042	304.89	.0034	306.12	.0026	32
33	309.55	.0044	311.16	.0035	312.45	.0027	313.45	.0019	33
34	317.65	.0037	319.01	.0029	320.06	.0020	320.80	.0014	34

Single Premium Temporary Insurance

American Experience $1000A^{1}_{x\,n|} = 1000(M_x - M_{x+n})/D_x$ 4%

x	$n=53$	Daily difference	$n=54$	Daily difference	$n=55$	Daily difference	$n=56$	Daily difference	x
35	325.82	.0030	326.91	.0022	327.70	.0014	328.22	.0009	35
36	334.03	.0023	334.86	.0015	335.40	.0009	335.74	.0005	36
37	342.27	.0016	342.85	.0010	343.20	.0005	343.39	.0002	37
38	350.57	.0010	350.94	.0005	350.14	.0002	351.22	.0001	38
39	358.94	.0006	359.15	.0002	359.24	.0001	359.26	.0000	39
40	367.45	.0002	367.54	.0001	367.57	.0000	367.58		40
41	376.14	.0001	376.16	.0000	376.17				41
42	385.05	.0000	385.06						42
43	394.25								43

x	$n=57$	Daily difference	$n=58$	Daily difference	$n=59$	Daily difference	$n=60$	Daily difference	x
15	201.85	.0073	204.51	.0070	207.08	.0068	209.55	.0064	15
16	206.63	.0074	209.32	.0071	211.92	.0067	214.38	.0064	16
17	211.68	.0074	214.39	.0071	216.97	.0067	219.40	.0063	17
18	216.90	.0074	219.80	.0070	222.18	.0066	224.59	.0061	18
19	222.40	.0074	225.10	.0069	227.60	.0064	229.92	.0059	19
20	228.08	.0072	230.72	.0067	233.17	.0062	235.40	.0057	20
21	233.98	.0070	236.54	.0065	238.90	.0059	241.06	.0054	21
22	240.03	.0068	242.51	.0062	244.77	.0056	246.82	.0050	22
23	246.25	.0065	248.62	.0054	250.77	.0052	252.68	.0046	23
24	252.62	.0062	254.87	.0055	256.87	.0048	258.62	.0041	24
25	259.13	.0058	261.23	.0050	263.06	.0043	264.63	.0036	25
26	265.75	.0053	267.67	.0045	269.32	.0038	270.71	.0032	26
27	272.47	.0047	274.19	.0040	275.65	.0033	276.86	.0027	27
28	279.25	.0042	280.78	.0035	282.05	.0028	283.07	.0021	28
29	286.11	.0036	287.44	.0029	288.51	.0023	289.33	.0016	29
30	293.04	.0030	294.16	.0024	295.02	.0017	295.64	.0011	30
31	300.03	.0025	300.93	.0018	301.58	.0012	302.01	.0007	31
32	307.07	.0019	307.75	.0012	308.20	.0008	308.48	.0004	32
33	314.16	.0013	314.63	.0008	314.93	.0004	315.08	.0002	33
34	321.30	.0009	321.61	.0004	321.77	.0002	321.84	.0001	34
35	328.54	.0005	328.72	.0002	328.79	.0001	328.81	.0000	35
36	335.92	.0002	336.00	.0001	336.02	.0000	336.02		36
37	343.47	.0001	343.49	.0000	343.50				37
38	351.24	.0000	351.25						38
39	359.27								39

4% $1000\,A^{1}_{x\,n|} = 1000\,(M_x - M_{x+n})/D_x$ American Experience

x	$n=61$	Daily difference	$n=62$	Daily difference	$n=63$	Daily difference	$n=64$	Daily difference	x
15	211.90	.0061	214.12	.0057	216.20	.0053	218.13	.0049	15
16	216.70	.0060	218.89	.0055	220.91	.0052	222.80	.0046	16
17	221.69	.0058	223.80	.0054	225.77	.0048	227.51	.0045	17
18	226.80	.0056	228.85	.0051	230.71	.0047	232.41	.0043	18
19	232.08	.0053	234.02	.0049	235.82	.0043	237.40	.0038	19
20	237.49	.0051	239.35	.0046	241.01	.0040	242.45	.0034	20
21	243.02	.0047	244.75	.0042	246.27	.0036	247.57	.0030	21
22	248.64	.0044	250.23	.0037	251.59	.0032	252.74	.0026	22
23	254.34	.0036	256.77	.0033	256.98	.0027	257.98	.0022	23
24	260.11	.0035	261.38.	.0029	262.43	.0023	263.27	.0018	24
25	265.95	.0030	267.05	.0024	267.94	.0019	268.62	.0013	25
26	271.86	.0025	272.79	.0019	273.50	.0014	274.01	.0009	26
27	277.83	.0021	278.58	.0015	279.11	.0010	279.47	.0006	27
28	283.85	.0015	284.41	.0010	284.79	.0006	285.02	.0003	28
29	289.92	.0011	290.31	.0007	290.55	.0004	290.68	.0002	29
30	296.05	.0007	296.30	.0004	296.44	.0001	296.49	.0001	30
31	302.28	.0004	302.42	.0002	302.48	.0000	302.49	.0000	31
32	308.63	.0002	308.69	.0001	308.71	.0000	308.71		32
33	315.15	.0000	315.16	.0000	315.17				33
34	321.86	.0000	321.86						34
35	328.81								35

x	$n=65$	Daily difference	$n=66$	Daily difference	$n=67$	Daily difference	$n=68$	Daily difference	x
15	219.91	.0045	221.54	.0040	223.01	.0036	224.32	.0032	15
16	224.49	.0042	226.03	.0038	227.42	.0032	228.60	.0029	16
17	229.15	.0040	230.60	.0034	231.85	.0030	232.91	.0026	17
18	233.92	.0036	235.23	.0031	236.37	.0026	237.32	.0022	18
19	238.78	.0033	240.00	.0027	241.00	.0022	241.80	.0019	19
20	243.69	.0029	244.74	.0024	245.61	.0019	246.31	.0015	20
21	248.67	.0024	249.58	.0020	250.31	.0014	250.87	.0011	21
22	253.70	.0021	254.47	.0016	255.05	.0012	255.48	.0008	22
23	258.78	.0017	259.40	.0012	259.84	.0008	260.14	.0005	23
24	263.92	.0013	264.38	.0008	264.69	.0005	264.88	.0003	24
25	269.10	.0009	269.43	.0005	269.63	.0003	269.74	.0001	25
26	274.35	.0006	274.56	.0003	274.68	.0001	274.72	.0000	26
27	279.69	.0003	279.81	.0001	279.86	.0000	279.87	.0000	27
28	285.14	.0001	285.19	.0001	285.21	.0000	285.21		28
29	290.74	.0000	290.75	.0000	290.75				29
30	296.51	.0000	296.51						30
31	302.50								31

Single Premium Temporary Insurance

American Experience $1000A^{1}_{x\,\overline{n}|} = 1000(M_x - M_{x+n})/D_x$ 4%

x	$n=69$	Daily difference	$n=70$	Daily difference	$n=71$	Daily difference	$n=72$	Daily difference	x
15	225.47	.0027	226.45	.0023	227.28	.0019	227.97	.0015	15
16	229.65	.0023	230.50	.0019	231.21	.0016	231.81	.0012	16
17	233.88	.0020	234.60	.0017	235.21	.0013	235.67	.0009	17
18	238.96	.0017	238.75	.0013	239.44	.0010	239.60	.0006	18
19	242.50	.0014	243.00	.0010	243.37	.0006	243.59	.0004	19
20	246.84	.0011	247.23	.0007	247.49	.0004	247.64	.0003	20
21	251.27	.0007	251.54	.0005	251.71	.0002	251.80	.0001	21
22	255.76	.0005	255.93	.0003	256.03	.0001	256.06	.0000	22
23	260.32	.0003	260.42	.0001	260.46	.0000	260.47	.0000	23
24	264.99	.0001	265.03	.0000	265.04	.0000	265.04		24
25	269.78	.0000	269.79	.0000	269.79				25
26	274.73	.0000	274.74						26
27	279.87								27

x	$n=73$	Daily difference	$n=74$	Daily difference	$n=75$	Daily difference	$n=76$	Daily difference	x
15	228.52	.0012	228.94	.0008	229.25	.0005	229.45	.0004	15
16	232.25	.0009	232.59	.0006	232.80	.0003	232.91	.0002	16
17	236.01	.0006	236.24	.0004	236.39	.0001	236.44	.0001	17
18	239.82	.0004	240.00	.0002	240.05	.0001	240.07	.0000	18
19	243.73	.0004	243.82	.0002	243.85	.0001	243.86	.0000	19
20	247.73	.0003	247.76	.0001	247.77	.0000	247.77		20
21	251.83	.0001	251.84	.0000	251.85				21
22	256.07	.0000	256.08						22
23	260.47								23

x	$n=77$	Daily difference	$n=78$	Daily difference	$n=79$	Daily difference	$n=80$	Daily difference	x
15	229.58	.0002	229.64	.0001	229.67	.0000	229.68	.0000	15
16	232.99	.0000	233.01	.0000	233.01	.0000	233.01		
17	236.49	.0000	236.48	.0000	236.48				
18	240.08	.0000	240.10					$n=81$	x
19	243.86							229.68	15

Temporary Life Annuity Due

4% $\quad \mathbf{a}_{x\,\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x$ American Experience

n	$x=15$	$x=16$	$x=17$	$x=18$	$x=19$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9542	1.9542	1.9541	1.9541	1.9541	2
3	2.8647	2.8646	2.8645	2.8644	2.8643	3
4	3.7333	3.7332	3.7331	3.7328	3.7326	4
5	4.5622	4.5620	4.5617	4.5613	4.5610	5
6	5.3530	5.3526	5.3522	5.3516	5.3511	6
7	6.1075	6.1069	6.1063	6.1055	6.1048	7
8	6.8272	6.8264	6.8256	6.8246	6.8236	8
9	7.5138	7.5128	7.5117	7.5104	7.5091	9
10	8.1687	8.1674	8.1661	8.1645	8.1629	10
11	8.7933	8.7918	8.7902	8.7883	8.7864	11
12	9.3891	9.3873	9.3854	9.3832	9.3809	12
13	9.9574	9.9552	9.9529	9.9504	9.9476	13
14	10.4993	10.4968	10.4941	10.4911	10.4880	14
15	11.0160	11.0132	11.0101	11.0067	11.0031	15
16	11.5088	11.5055	11.5020	11.4982	11.4941	16
17	11.9785	11.9749	11.9709	11.9666	11.9620	17
18	12.4264	12.4223	12.4179	12.4130	12.4079	18
19	12.8534	12.8488	12.8438	12.8385	12.8327	19
20	13.2603	13.2552	13.2498	13.2438	13.2374	20
21	13.6481	13.6426	13.6365	13.6300	13.6230	21
22	14.0177	14.0116	14.0050	13.9978	13.9901	22
23	14.3698	14.3632	14.3559	14.3481	14.3396	23
24	14.7053	14.6980	14.6901	14.6816	14.6724	24
25	15.0248	15.0169	15.0084	14.9990	14.9890	25
26	15.3291	15.3206	15.3113	15.3012	15.2903	26
27	15.6188	15.6096	15.5995	15.5886	15.5769	27
28	15.8946	15.8846	15.8738	15.8620	15.8493	28
29	16.1571	16.1464	16.1347	16.1220	16.1083	29
30	16.4068	16.3953	16.3827	16.3690	16.3543	30
31	16.6443	16.6319	16.6185	16.6038	16.5879	31
32	16.8702	16.8569	16.8424	16.8266	16.8095	32
33	17.0848	17.0706	17.0551	17.0381	17.0197	33
34	17.2887	17.2735	17.2568	17.2387	17.2189	34
35	17.4823	17.4660	17.4482	17.4287	17.4074	35
36	17.6660	17.6486	17.6295	17.6086	17.5858	36
37	17.8402	17.8216	17.8012	17.7788	17.7543	37
38	18.0053	17.9854	17.9635	17.9395	17.9133	38
39	18.1616	18.1403	18.1169	18.0912	18.0632	39
40	18.3094	18.2867	18.2617	18.2342	18.2042	40
41	18.4491	18.4248	18.3981	18.3688	18.3367	41
42	18.5809	18.5550	18.5265	18.4952	18.4609	42
43	18.7051	18.6775	18.6471	18.6137	18.5772	43
44	18.8220	18.7925	18.7602	18.7247	18.6858	44
45	18.9318	18.9005	18.8661	18.8283	18.7869	45
46	19.0348	19.0015	18.9649	18.9247	18.8808	46
47	19.1312	19.0958	19.0570	19.0144	18.9678	47
48	19.2212	19.1836	19.1425	19.0974	19.0481	48
49	19.3050	19.2652	19.2217	19.1740	19.1220	49
50	19.3828	19.3408	19.2948	19.2444	19.1896	50

Temporary Life Annuity Due

American Experience $\quad \mathbf{a}_{x\,\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ 4%

n	$x=20$	$x=21$	$x=22$	$x=23$	$x=24$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9540	1.9540	1.9539	1.9539	1.9538	2
3	2.8642	2.8640	2.8639	2.8637	2.8636	3
4	3.7324	3.7321	3.7318	3.7315	3.7312	4
5	4.5606	4.5601	4.5596	4.5592	4.5587	5
6	5.3503	5.3498	5.3492	5.3485	5.3477	6
7	6.1039	6.1030	6.1021	6.1011	6.0999	7
8	6.8225	6.8213	6.8201	6.8188	6.8174	8
9	7.5078	7.5063	7.5047	7.5030	7.5013	9
10	8.1612	8.1594	8.1574	8.1554	8.1532	10
11	8.7843	8.7821	8.7797	8.7772	8.7746	11
12	9.3784	9.3757	9.3729	9.3699	9.3668	12
13	9.9447	9.9416	9.9383	9.9348	9.9311	13
14	10.4846	10.4810	10.4772	10.4731	10.4688	14
15	10.9992	10.9951	10.9907	10.9860	10.9810	15
16	11.4897	11.4850	11.4800	11.4746	11.4689	16
17	11.9570	11.9517	11.9461	11.9400	11.9335	17
18	12.4023	12.3964	12.3900	12.3832	12.3759	18
19	12.8266	12.8199	12.8128	12.8052	12.7970	19
20	13.2306	13.2232	13.2154	13.2069	13.1978	20
21	13.6154	13.6073	13.5986	13.5892	13.5791	21
22	13.9818	13.9728	13.9632	13.9529	13.9418	22
23	14.3305	14.3207	14.3102	14.2989	14.2866	23
24	14.6625	14.6517	14.6402	14.6278	14.6143	24
25	14.9782	14.9665	14.9540	14.9404	14.9257	25
26	15.2786	15.2659	15.2522	15.2374	15.2213	26
27	15.5642	15.5504	15.5355	15.5194	15.5018	27
28	15.8356	15.8206	15.8045	15.7870	15.7678	28
29	16.0934	16.0773	16.0598	16.0407	16.0199	29
30	16.3382	16.3208	16.3018	16.2812	16.2585	30
31	16.5706	16.5517	16.5312	16.5088	16.4843	31
32	16.7909	16.7705	16.7483	16.7241	16.6975	32
33	16.9996	16.9777	16.9537	16.9275	16.8988	33
34	17.1973	17.1736	17.1478	17.1195	17.0884	34
35	17.3842	17.3587	17.3309	17.3004	17.2669	35
36	17.5608	17.5334	17.5035	17.4707	17.4346	36
37	17.7275	17.6981	17.6659	17.6306	17.5918	37
38	17.8846	17.8530	17.8185	17.7806	17.7390	38
39	18.0324	17.9986	17.9616	17.9210	17.8764	39
40	18.1712	18.1351	18.0955	18.0520	18.0044	40
41	18.3015	18.2628	18.2205	18.1741	18.1233	41
42	18.4233	18.3821	18.3370	18.2875	18.2334	42
43	18.5371	18.4932	18.4452	18.3926	18.3350	43
44	18.6431	18.5964	18.5453	18.4895	18.4284	44
45	18.7416	18.6920	18.6378	18.5786	18.5140	45
46	18.8328	18.7802	18.7228	18.6603	18.5920	46
47	18.9169	18.8613	18.8007	18.7347	18.6627	47
48	18.9943	18.9356	18.8717	18.8021	18.7266	48
49	19.0652	19.0033	18.9360	18.8630	18.7837	49
50	19.1298	19.0647	18.9941	18.9176	18.8347	50

Temporary Life Annuity Due

4% $\quad \mathbf{a}_{x\,\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ American Experience

n	$x=25$	$x=26$	$x=27$	$x=28$	$x=29$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9538	1.9537	1.9537	1.9536	1.9535	2
3	2.8634	2.8632	2.8631	2.8629	2.8626	3
4	3.7309	3.7306	3.7302	3.7298	3.7293	4
5	4.5581	4.5576	4.5569	4.5563	4.5555	5
6	5.3469	5.3460	5.3451	5.3441	5.3430	6
7	6.0990	6.0977	6.0965	6.0951	6.0936	7
8	6.8159	6.8143	6.8126	6.8108	6.8088	8
9	7.4994	7.4973	7.4951	7.4928	7.4902	9
10	8.1508	8.1483	8.1455	8.1426	8.1394	10
11	8.7717	8.7686	8.7652	8.7617	8.7577	11
12	9.3633	9.3596	9.3556	9.3513	9.3466	12
13	9.9270	9.9226	9.9179	9.9128	9.9073	13
14	10.4641	10.4589	10.4534	10.4475	10.4410	14
15	10.9756	10.9697	10.9633	10.9564	10.9489	15
16	11.4627	11.4559	11.4487	11.4408	11.4321	16
17	11.9265	11.9188	11.9106	11.9016	11.8918	17
18	12.3680	12.3594	12.3500	12.3399	12.3288	18
19	12.7882	12.7785	12.7680	12.7566	12.7441	19
20	13.1879	13.1771	13.1654	13.1527	13.1387	20
21	13.5681	13.5562	13.5432	13.5290	13.5134	21
22	13.9296	13.9164	13.9020	13.8862	13.8689	22
23	14.2732	14.2586	14.2427	14.2253	14.2060	23
24	14.5996	14.5836	14.5660	14.5468	14.5255	24
25	14.9096	14.8919	14.8726	14.8514	14.8279	25
26	15.2037	15.1843	15.1631	15.1398	15.1140	26
27	15.4826	15.4614	15.4382	15.4126	15.3843	27
28	15.7468	15.7237	15.6983	15.6703	15.6393	28
29	15.9970	15.9718	15.9441	15.9136	15.8797	29
30	16.2337	16.2062	16.1761	16.1428	16.1059	30
31	16.4573	16.4275	16.3947	16.3585	16.3184	31
32	16.6683	16.6359	16.6004	16.5611	16.5177	32
33	16.8671	16.8321	16.7936	16.7511	16.7042	33
34	17.0542	17.0164	16.9748	16.9290	16.8784	34
35	17.2300	17.1893	17.1445	17.0951	17.0406	35
36	17.3949	17.3510	17.3028	17.2497	17.1912	36
37	17.5491	17.5021	17.4503	17.3934	17.3308	37
38	17.6932	17.6428	17.5874	17.5265	17.4596	38
39	17.8274	17.7734	17.7143	17.6493	17.5780	39
40	17.9520	17.8945	17.8314	17.7622	17.6864	40
41	18.0675	18.0062	17.9391	17.8656	17.7853	41
42	18.1740	18.1089	18.0377	17.9599	17.8749	42
43	18.2720	18.2029	18.1276	18.0454	17.9558	43
44	18.3617	18.2887	18.2091	18.1225	18.0283	44
45	18.4434	18.3664	18.2827	18.1916	18.0929	45
46	18.5176	18.4366	18.3486	18.2532	18.1500	46
47	18.5845	18.4994	18.4073	18.3077	18.2001	47
48	18.6445	18.5554	18.4592	18.3555	18.2437	48
49	18.6979	18.6050	18.5048	18.3971	18.2814	49
50	18.7451	18.6484	18.5445	18.4330	18.3136	50

Temporary Life Annuity Due

American Experience

$$a_{x\overline{n}|} = (N_x - N_{x+n})/D_x$$

4%

n	$x=30$	$x=31$	$x=32$	$x=33$	$x=34$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9534	1.9534	1.9533	1.9532	1.9530	2
3	2.8624	2.8622	2.8619	2.8616	2.8612	3
4	3.7289	3.7284	3.7278	3.7272	3.7266	4
5	4.5548	4.5539	4.5530	4.5520	4.5509	5
6	5.3419	5.3406	5.3392	5.3377	5.3361	6
7	6.0920	6.0902	6.0883	6.0862	6.0839	7
8	6.8066	6.8043	6.8017	6.7989	6.7958	8
9	7.4874	7.4844	7.4811	7.4775	7.4736	9
10	8.1359	8.1322	8.1280	8.1235	8.1185	10
11	8.7535	8.7489	8.7438	8.7382	8.7322	11
12	9.3415	9.3360	9.3298	9.3231	9.3158	12
13	9.9012	9.8946	9.8874	9.8795	9.8708	13
14	10.4339	10.4262	10.4177	10.4084	10.3982	14
15	10.9407	10.9318	10.9219	10.9111	10.8993	15
16	11.4228	11.4125	11.4012	11.3887	11.3750	16
17	11.8811	11.8694	11.8564	11.8422	11.8265	17
18	12.3167	12.3034	12.2887	12.2725	12.2546	18
19	12.7305	12.7155	12.6989	12.6806	12.6603	19
20	13.1234	13.1066	13.0879	13.0672	13.0443	20
21	13.4963	13.4774	13.4565	13.4333	13.4075	21
22	13.8499	13.8288	13.8055	13.7795	13.7508	22
23	14.1849	14.1615	14.1355	14.1067	14.0747	23
24	14.5021	14.4762	14.4474	14.4154	14.3799	24
25	14.8021	14.7735	14.7416	14.7063	14.6672	25
26	15.0856	15.0540	15.0190	14.9801	14.9370	26
27	15.3530	15.3184	15.2800	15.2373	15.1901	27
28	15.6051	15.5672	15.5251	15.4785	15.4269	28
29	15.8424	15.8010	15.7551	15.7042	15.6480	29
30	16.0652	16.0202	15.9703	15.9150	15.8540	30
31	16.2742	16.2253	16.1712	16.1114	16.0454	31
32	16.4698	16.4169	16.3583	16.2937	16.2226	32
33	16.6525	16.5953	16.5322	16.4626	16.3861	33
34	16.8226	16.7611	16.6932	16.6185	16.5365	34
35	16.9806	16.9146	16.8418	16.7618	16.6742	35
36	17.1269	17.0562	16.9784	16.8931	16.7997	36
37	17.2620	17.1865	17.1036	17.0127	16.9136	37
38	17.3862	17.3058	17.2176	17.1213	17.0162	38
39	17.4999	17.4145	17.3210	17.2191	17.1083	39
40	17.6036	17.5131	17.4143	17.3069	17.1903	40
41	17.6976	17.6021	17.4980	17.3850	17.2628	41
42	17.7824	17.6818	17.5725	17.4541	17.3264	42
43	17.8585	17.7528	17.6384	17.5148	17.3819	43
44	17.9262	17.8156	17.6962	17.5676	17.4297	44
45	17.9861	17.8708	17.7466	17.6132	17.4706	45
46	18.0386	17.9188	17.7900	17.6522	17.5052	46
47	18.0844	17.9602	17.8272	17.6852	17.5340	47
48	18.1239	17.9956	17.8586	17.7127	17.5578	48
49	18.1577	18.0256	17.8848	17.7353	17.5770	49
50	18.1862	18.0506	17.9064	17.7536	17.5922	50

Temporary Life Annuity Due

4% $\quad \mathbf{a}_{x\,\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x$ \quad American Experience

n	$x=35$	$x=36$	$x=37$	$x=38$	$x=39$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9529	1.9528	1.9527	1.9525	1.9523	2
3	2.8609	2.8605	2.8601	2.8596	2.8590	3
4	3.7259	3.7251	3.7242	3.7232	3.7222	4
5	4.5497	4.5484	4.5470	4.5453	4.5436	5
6	5.3343	5.3323	5.3302	5.3277	5.3251	6
7	6.0814	6.0786	6.0755	6.0721	6.0684	7
8	6.7925	6.7887	6.7847	6.7801	6.7752	8
9	7.4692	7.4644	7.4592	7.4533	7.4469	9
10	8.1131	8.1071	8.1005	8.0931	8.0850	10
11	8.7255	8.7181	8.7100	8.7009	8.6909	11
12	9.3078	9.2989	9.2890	9.2781	9.2659	12
13	9.8612	9.8506	9.8388	9.8257	9.8112	13
14	10.3870	10.3744	10.3606	10.3450	10.3278	14
15	10.8862	10.8715	10.8553	10.8371	10.8169	15
16	11.3599	11.3429	11.3241	11.3030	11.2796	16
17	11.8091	11.7896	11.7679	11.7437	11.7167	17
18	12.2347	12.2125	12.1877	12.1600	12.1291	18
19	12.6377	12.6125	12.5844	12.5529	12.5179	19
20	13.0189	12.9904	12.9587	12.9232	12.8837	20
21	13.3790	13.3470	13.3111	13.2716	13.2274	21
22	13.7188	13.6831	13 6433	13.5990	13.5496	22
23	14.0391	13.9993	13.9552	13.9059	13.8513	23
24	14.3405	14.2965	14.2476	14.1932	14.1329	24
25	14.6236	14.5751	14.5213	14.4615	14.3952	25
26	14.8892	14.8359	14.7769	14.7113	14.6389	26
27	15.1376	15.0794	15.0149	14.9434	14.8646	27
28	15.3697	15.3062	15.2360	15.1584	15.0729	28
29	15.5858	15.5169	15.4408	15.3568	15.2644	29
30	15.7866	15.7120	15.6298	15.5392	15.4398	30
31	15.9725	15.8920	15.8036	15.7062	15.5996	31
32	16.1441	16.0576	15.9627	15.8585	15.7446	32
33	16.3019	16.2093	16.1078	15.9966	15.8754	33
34	16.4464	16.3475	16.2393	16.1212	15.9926	34
35	16.5781	16.4728	16.3580	16.2328	16.0970	35
36	16.6976	16.5859	16.4644	16.3323	16.1894	36
37	16.8053	16.6872	16.5591	16.4203	16.2704	37
38	16.9019	16.7775	16.6429	16.4975	16.3410	38
39	16.9879	16.8574	16.7165	16.5647	16.4020	39
40	17.0640	16.9274	16.7805	16.6227	16.4541	40
41	17.1308	16.9885	16.8358	16.6724	16.4981	41
42	17.1889	17.0412	16.8831	16.7143	16.5348	42
43	17.2391	17.0862	16.9230	16.7493	16.5651	43
44	17.2820	17.1242	16.9564	16.7781	16.5895	44
45	17.3183	17.1560	16.9838	16.8014	16.6090	45
46	17.3486	17.1822	17.0060	16.8199	16.6241	46
47	17.3735	17.2033	17.0236	16.8343	16.6355	47
48	17.3937	17.2201	17.0373	16.8452	16.6439	48
49	17.4097	17.2332	17.0477	16.8532	16.6499	49
50	17.4221	17.2431	17.0554	16.8589	16.6539	50

Temporary Life Annuity Due

American Experience $\quad \mathbf{a}_{x\,\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ 4%

n	$x=40$	$x=41$	$x=42$	$x=43$	$x=44$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9521	1.9519	1.9517	1.9514	1.9511	2
3	2.8585	2.8578	2.8571	2.8564	2.8555	3
4	3.7210	3.7198	3.7183	3.7168	3.7150	4
5	4.5417	4.5395	4.5372	4.5345	4.5315	5
6	5.3222	5.3190	5.3154	5.3114	5.3068	6
7	6.0643	6.0598	6.0547	6.0490	6.0425	7
8	6.7697	6.7636	6.7567	6.7490	6.7402	8
9	7.4398	7.4318	7.4229	7.4128	7.4012	9
10	8.0760	8.0660	8.0546	8.0417	8.0271	10
11	8.6798	8.6673	8.6531	8.6372	8.6191	11
12	9.2523	9.2371	9.2198	9.2004	9.1784	12
13	9.7948	9.7765	9.7558	9.7325	9.7062	13
14	10.3084	10.2867	10.2623	10.2347	10.2036	14
15	10.7942	10.7688	10.7402	10.7079	10.6716	15
16	11.2532	11.2237	11.1905	11.1528	11.1114	16
17	11.6863	11.6524	11.6144	11.5717	11.5238	17
18	12.0945	12.0559	12.0125	11.9640	11.9142	18
19	12.4787	12.4349	12.3859	12.3312	12.2701	19
20	12.8395	12.7903	12.7354	12.6741	12.6057	20
21	13.1780	13.1230	13.0617	12.9934	12.9176	21
22	13.4947	13.4336	13.3656	13.2901	13.2063	22
23	13.7904	13.7229	13.6479	13.5648	13.4728	23
24	14.0659	13.9917	13.9094	13.8184	13.7179	24
25	14.3218	14.2406	14.1507	14.0515	13.9423	25
26	14.5587	14.4703	14.3726	14.2651	14.1468	26
27	14.7774	14.6815	14.5758	14.4597	14.3324	27
28	14.9785	14.8749	14.7610	14.6362	14.4997	28
29	15.1627	15.0512	14.9290	14.7954	14.6497	29
30	15.3306	15.2111	15.0805	14.9381	14.7833	30
31	15.4828	15.3553	15.2163	15.0652	14.9015	31
32	15.6201	15.4846	15.3373	15.1776	15.0052	32
33	15.7432	15.5998	15.4443	15.2763	15.0955	33
34	15.8529	15.7016	15.5382	15.3623	15.1735	34
35	15.9499	15.7910	15.6200	15.4365	15.2401	35
36	16.0350	15.8689	15.6906	15.4999	15.2965	36
37	16.1091	15.9361	15.7509	15.5535	15.3435	37
38	16.1731	15.9935	15.8019	15.5982	15.3822	38
39	16.2278	16.0421	15.8445	15.6350	15.4135	39
40	16.2740	16.0826	15.8795	15.6648	15.4383	40
41	16.3126	16.1160	15.9079	15.6884	15.4577	41
42	16.3444	16.1430	15.9304	15.7068	15.4723	42
43	16.3701	16.1644	15.9479	15.7208	15.4831	43
44	16.3904	16.1810	15.9611	15.7310	15.4907	44
45	16.4063	16.1937	15.9709	15.7382	15.4958	45
46	16.4183	16.2029	15.9778	15.7431	15.4990	46
47	16.4272	16.2095	15.9824	15.7461	15.5008	47
48	16.4334	16.2139	15.9853	15.7479	15.5018	48
49	16.4376	16.2166	15.9870	15.7488	15.5023	49
50	16.4402	16.2183	15.9879	15.7493	15.5024	50

Temporary Life Annuity Due

4% $\quad a_{x\overline{n}|} = (N_x - N_{x+n})/D_x \quad$ American Experience

n	$x=45$	$x=46$	$x=47$	$x=48$	$x=49$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9508	1.9504	1.9500	1.9495	1.9489	2
3	2.8545	2.8533	2.8520	2.8505	2.8488	3
4	3.7130	3.7106	3.7080	3.7050	3.7015	4
5	4.5281	4.5242	4.5197	4.5146	4.5087	5
6	5.3016	5.2956	5.2889	5.2811	5.2723	6
7	6.0351	6.0266	6.0170	6.0061	5.9937	7
8	6.7302	6.7187	6.7058	6.6910	6.6744	8
9	7.3882	7.3733	7.3565	7.3374	7.3160	9
10	8.0106	7.9918	7.9706	7.9466	7.9197	10
11	8.5986	8.5754	8.5493	8.5199	8.4869	11
12	9.1535	9.1254	9.0939	9.0584	9.0188	12
13	9.6765	9.6430	9.6055	9.5635	9.5166	13
14	10.1686	10.1293	10.0853	10.0361	9.9814	14
15	10.6310	10.5853	10.5343	10.4775	10.4144	15
16	11.0645	11.0120	10.9536	10.8886	10.8166	16
17	11.4703	11.4105	11.3441	11.2704	11.1890	17
18	11.8492	11.7817	11.7069	11.6241	11.5328	18
19	12.2021	12.1265	12.0429	11.9505	11.8489	19
20	12.5299	12.4458	12.3529	12.2506	12.1383	20
21	12.8335	12.7405	12.6381	12.5254	12.4021	21
22	13.1137	13.0115	12.8992	12.7760	12.6414	22
23	13.3714	13.2596	13.1372	13.0032	12.8573	23
24	13.6073	13.4858	13.3530	13.2081	13.0507	24
25	13.8224	13.6910	13.5477	13.3918	13.2231	25
26	14.0174	13.8760	13.7222	13.5554	13.3755	26
27	14.1934	14.0419	13.8777	13.6001	13.5093	27
28	14.3511	14.1896	14.0151	13.8272	13.6258	28
29	14.4916	14.3203	14.1358	13.9378	13.7263	29
30	14.6158	14.4350	14.2409	14.0333	13.8123	30
31	14.7249	14.5349	14.3316	14.1149	13.8850	31
32	14.8198	14.6211	14.4092	14.1839	13.9456	32
33	14.9018	14.6948	14.4747	14.2415	13.9955	33
34	14.9719	14.7571	14.5294	14.2889	14.0359	34
35	15.0311	14.8091	14.5744	14.3272	14.0680	35
36	15.0806	14.8519	14.6109	14.3577	14.0929	36
37	15.1212	14.8865	14.6398	14.3813	14.1118	37
38	15.1541	14.9140	14.6623	14.3993	14.1257	38
39	15.1803	14.9353	14.6793	14.4125	14.1355	39
40	15.2006	14.9515	14.6918	14.4218	14.1420	40
41	15.2160	14.9634	14.7007	14.4280	14.1462	41
42	15.2273	14.9718	14.7066	14.4319	14.1486	42
43	15.2353	14.9775	14.7103	14.4342	14.1498	43
44	15.2407	14.9810	14.7125	14.4354	14.1504	44
45	15.2440	14.9831	14.7136	14.4359	14.1506	45
46	15.2460	14.9842	14.7141	14.4361	14.1506	46
47	15.2470	14.9846	14.7143	14.4362	14.1507	47
48	15.2475	14.9848	14.7144	14.4362		48
49	15.2476	14.9848	14.7144			49
50	15.2477	14.9849				50

Temporary Life Annuity Due

American Experience $\quad \mathbf{a}_{x\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ 4%

n	$x=50$	$x=51$	$x=52$	$x=53$	$x=54$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9483	1.9476	1.9467	1.9458	1.9448	2
3	2.8468	2.8446	2.8422	2.8395	2.8364	3
4	3.6975	3.6931	3.6882	3.6828	3.6767	4
5	4.5022	4.4948	4.4866	4.4775	4.4674	5
6	5.2624	5.2513	5.2391	5.2254	5.2102	6
7	5.9798	5.9643	5.9471	5.9280	5.9069	7
8	6.6559	6.6352	6.6123	6.5869	6.5588	8
9	7.2921	7.2655	7.2361	7.2036	7.1676	9
10	7.8898	7.8566	7.8199	7.7794	7.7346	10
11	8.4503	8.4098	8.3650	8.3157	8.2614	11
12	8.9749	8.9263	8.8728	8.8139	8.7492	12
13	9.4647	9.4075	9.3445	9.2753	9.1994	13
14	9.9210	9.8544	9.7813	9.7011	9.6133	14
15	10.3448	10.2683	10.1844	10.0926	9.9924	15
16	10.7373	10.6503	10.5551	10.4512	10.3380	16
17	11.0996	11.0016	10.8946	10.7780	10.6514	17
18	11.4326	11.3232	11.2040	11.0744	10.9430	18
19	11.7377	11.6164	11.4846	11.3418	11.1875	19
20	12.0157	11.8823	11.7377	11.5815	11.4131	20
21	12.2679	12.1222	11.9647	11.7949	11.6128	21
22	12.4953	12.3372	12.1668	11.9837	11.7880	22
23	12.6992	12.5287	12.3455	12.1495	11.9406	23
24	12.8808	12.6981	12.5024	12.2938	12.0723	24
25	13.0414	12.8467	12.6390	12.4184	12.1849	25
26	13.1824	12.9762	12.7570	12.5249	12.2800	26
27	13.3052	13.0880	12.8578	12.6149	12.3595	27
28	13.4112	13.1835	12.9430	12.6900	12.4248	28
29	13.5017	13.2642	13.0142	12.7518	12.4777	29
30	13.5783	13.3317	13.0727	12.8019	12.5197	30
31	13.6422	13.3871	13.1200	12.8416	12.5523	31
32	13.6948	13.4320	13.1576	12.8724	12.5771	32
33	13.7374	13.4676	13.1869	12.8958	12.5953	33
34	13.7712	13.4953	13.2090	12.9130	12.6081	34
35	13.7974	13.5163	13.2253	12.9252	12.6167	35
36	13.8173	13.5317	13.2368	12.9333	12.6221	36
37	13.8320	13.5426	13.2445	12.9384	12.6253	37
38	13.8423	13.5499	13.2494	12.9414	12.6269	38
39	13.8492	13.5545	13.2522	12.9430	12.6277	39
40	13.8536	13.5572	13.2537	12.9437	12.6279	40
41	13.8561	13.5586	13.2543	12.9439	12.6280	41
42	13.8574	13.5592	13.2545	12.9440	12.6280	42
43	13.8580	13.5594	13.2546	12.9440		43
44	13.8582	13.5595	13.2546			44
45	13.8583	13.5595				45
46	13.8583					46
47						47
48						48
49						49
50						50

Temporary Life Annuity Due

4% $\mathbf{a}_{x\overline{n}|} = (\dot{\mathbb{N}}_x - \mathbb{N}_{x+n})/\mathbf{D}_x$ American Experience

n	$x=55$	$x=56$	$x=57$	$x=58$	$x=59$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9437	1.9424	1.9410	1.9395	1.9378	2
3	2.8330	2.8293	2.8251	2.8205	2.8154	3
4	3.6699	3.6624	3.6542	3.6450	3.6349	4
5	4.4562	4.4437	4.4301	4.4149	4.3982	5
6	5.1935	5.1750	5.1546	5.1321	5.1073	6
7	5.8835	5.8578	5.8294	5.7982	5.7639	7
8	6.5279	6.4937	6.4563	6.4151	6.3700	8
9	7.1280	7.0845	7.0368	6.9845	6.9273	9
10	7.6855	7.6316	7.5726	7.5081	7.4376	10
11	8.2018	8.1365	8.0653	7.9875	7.9027	11
12	8.6783	8.6009	8.5164	8.4245	8.3246	12
13	9.1165	9.0260	8.9277	8.8209	8.7051	13
14	9.5177	9.4136	9.3006	9.1783	9.0463	14
15	9.8834	9.7651	9.6370	9.4988	9.3501	15
16	10.2151	10.0821	9.9386	9.7842	9.6188	16
17	10.5143	10.3663	10.2072	10.0367	9.8547	17
18	10.7825	10.6195	10.4448	10.2583	10.0601	18
19	11.0214	10.8433	10.6533	10.4513	10.2374	19
20	11.2327	11.0399	10.8349	10.6179	10.3889	20
21	11.4181	11.2110	10.9917	10.7602	10.5170	21
22	11.5796	11.3587	11.1256	10.8806	10.6240	22
23	11.7190	11.4850	11.2389	10.9811	10.7120	23
24	11.8382	11.5917	11.3335	10.0637	10.7832	24
25	11.9389	11.6809	11.4112	11.1306	10.8397	25
26	12.0230	11.7542	11.4742	11.1837	10.8836	26
27	12.0922	11.8135	11.5241	11.2250	10.9169	27
28	12.1482	11.8606	11.5630	11.2563	10.9414	28
29	12.1926	11.8972	11.5924	11.2793	10.9587	29
30	12.2271	11.9249	11.6141	11.2955	10.9703	30
31	12.2533	11.9453	11.6294	11.3064	10.9776	31
32	12.2726	11.9597	11.6396	11.3133	10.9818	32
33	12.2862	11.9694	11.6461	11.3172	10.9840	33
34	12.2953	11.9755	11.6498	11.3193	10.9850	34
35	12.3010	11.9790	11.6518	11.3203	10.9854	35
36	12.3043	11.9808	11.6526	11.3206	10.9855	36
37	12.3061	11.9817	11.6529	11.3207	10.9855	37
38	12.3069	11.9819	11.6530	11.3207		38
39	12.3071	11.9820	11.6530			39
40	12.3072	11.9820				40

n	$x=90$	$x=91$	$x=92$	$x=93$	$x=94$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.5245	1.4496	1.3517	1.2556	1.1374	2
3	1.7603	1.6076	1.4416	1.2907		
4	1.8432	1.6481	1.4539			
5	1.8644	1.6536				
					$x=95$	n
6	1.8673				1.0000	1

Temporary Life Annuity Due

American Experience $\quad \mathbf{a}_{x\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ 4%

n	$x=60$	$x=61$	$x=62$	$x=63$	$x=64$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9359	1.9338	1.9315	1.9289	1.9261	2
3	2.8098	2.8035	2.7967	2.7891	2.7808	3
4	3.6237	3.6114	3.5979	3.5831	3.5668	4
5	4.3799	4.3597	4.3375	4.3132	4.2865	5
6	5.0801	5.0502	5.0175	4.9817	4.9425	6
7	5.7263	5.6852	5.6402	5.5911	5.5375	7
8	6.3206	6.2666	6.2078	6.1438	6.0741	8
9	6.8648	6.7967	6.7226	6.6423	6.5552	9
10	7.3608	7.2774	7.1869	7.0891	6.9837	10
11	7.8107	7.7109	7.6032	7.4872	7.3627	11
12	8.2165	8.0996	7.9739	7.8392	7.6953	12
13	8.5802	8.4458	8.3018	8.1482	7.9850	13
14	8.9042	8.7520	8.5896	8.4173	8.2351	14
15	9.1907	9.0207	8.8403	8.6496	8.4488	15
16	9.4423	9.2548	9.0567	8.8481	8.6295	16
17	9.6613	9.4568	9.2416	9.0159	8.7803	17
18	9.8504	9.6295	9.3979	9.1561	8.9044	18
19	10.0120	9.7755	9.5284	9.2713	9.0048	19
20	10.1486	9.8973	9.6358	9.3646	9.0845	20
21	10.2626	9.9976	9.7226	9.4386	9.1465	21
22	10.3565	10.0787	9.7916	9.4962	9.1935	22
23	10.4324	10.1431	9.8452	9.5398	9.2280	23
24	10.4926	10.1932	9.8859	9.5719	9.2524	24
25	10.5395	10.2311	9.9158	9.5946	9.2687	25
26	10.5750	10.2590	9.9369	9.6097	9.2790	26
27	10.6011	10.2787	9.9510	9.6193	9.2850	27
28	10.6196	10.2919	9.9599	9.6248	9.2881	28
29	10.6319	10.3002	9.9650	9.6277	9.2895	29
30	10.6397	10.3050	9.9677	9.6290	9.2900	30
31	10.6442	10.3076	9.9690	9.6295	9.2901	31
32	10.6466	10.3087	9.9694	9.6296	9.2901	32
33	10.6476	10.3091	9.9695	9.6296		33
34	10.6480	10.3092	9.9695			34
35	10.6481	10.3092				35
36	10.6481					

n	$x=85$	$x=86$	$x=87$	$x=88$	$x=89$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.7350	1.7061	1.6702	1.6282	1.5809	2
3	2.2540	2.1793	2.0912	1.9931	1.8856	3
4	2.6019	2.4765	2.3357	2.1845	2.0225	4
5	2.8204	2.6492	2.4640	2.2705	2.0707	5
6	2.9473	2.7398	2.5216	2.3008	2.0830	6
7	3.0138	2.7805	2.5419	2.3085	2.0847	7
8	3.0438	2.7948	2.5471	2.3096		8
9	3.0543	2.7984	2.5478			9
10	3.0570	2.7989				10
11	3.0574					11

Temporary Life Annuity Due

4% $\quad \mathbf{a}_{x\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ American Experience

n	$x=65$	$x=66$	$x=67$	$x=68$	$x=69$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9230	1.9195	1.9157	1.9115	1.9070	2
3	2.7716	2.7615	2.7504	2.7383	2.7250	3
4	3.5488	3.5291	3.5075	3.4839	3.4583	4
5	4.2572	4.2252	4.1903	4.1524	4.1114	5
6	4.8996	4.8530	4.8024	4.7477	4.6891	6
7	5.4791	5.4159	5.3476	5.2743	5.1962	7
8	5.9986	5.9172	5.8298	5.7365	5.6378	8
9	6.4613	6.3606	6.2531	6.1390	6.0189	9
10	6.8705	6.7498	6.6217	6.4865	6.3447	10
11	7.2297	7.0887	6.9398	6.7835	6.6202	11
12	7.5425	7.3813	7.2118	7.0345	6.8501	12
13	7.8126	7.6313	7.4417	7.2441	7.0392	13
14	8.0434	7.8427	7.6336	7.4165	7.1923	14
15	8.2385	8.0192	7.7915	7.5560	7.3138	15
16	8.4013	8.1644	7.9192	7.6668	7.4082	16
17	8.5353	8.2818	8.0206	7.7529	7.4798	17
18	8.6437	8.3751	8.0995	7.8181	7.5325	18
19	8.7298	8.4476	8.1593	7.8661	7.5696	19
20	8.7967	8.5025	8.2032	7.9000	7.5946	20
21	8.8474	8.5429	8.2342	7.9227	7.6102	21
22	8.8847	8.5715	8.2550	7.9370	7.6193	22
23	8.9111	8.5906	8.2681	7.9453	7.6241	23
24	8.9287	8.6026	8.2757	7.9496	7.6262	24
25	8.9398	8.6096	8.2796	7.9516	7.6270	25
26	8.9462	8.6132	8.2814	7.9523	7.6271	26
27	8.9496	8.6149	8.2821	7.9524	7.6272	27
28	8.9511	8.6155	8.2822	7.9525		28
29	8.9517	8.6156	8.2822			29
30	8.9518	8.6156				30
31	8.9518					31

n	$x=80$	$x=81$	$x=82$	$x=83$	$x=84$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.8226	1.8090	1.7939	1.7773	1.7583	2
3	2.4882	2.4514	2.4111	2.3668	2.3157	3
4	3.0166	2.9507	2.8791	2.8001	2.7093	4
5	3.4273	3.3293	3.2231	3.1060	2.9730	5
6	3.7388	3.6076	3.4660	3.3111	3.1387	6
7	3.9677	3.8041	3.6288	3.4399	3.2349	7
8	4.1294	3.9358	3.7311	3.5147	3.2854	8
9	4.2377	4.0186	3.7905	3.5539	3.3081	9
10	4.3058	4.0666	3.8216	3.5716	3.3161	10
11	4.3453	4.0918	3.8356	3.5778	3.3181	11
12	4.3660	4.1031	3.8405	3.5793	3.3184	12
13	4.3754	4.1071	3.8418	3.5796		13
14	4.3786	4.1081	3.8420			14
15	4.3795	4.1083				15
16	4.3796					

Temporary Life Annuity Due

American Experience $\quad \mathbf{a}_{x\overline{n}|} = (\mathbb{N}_x - \mathbb{N}_{x+n})/\mathbf{D}_x \quad$ 4%

n	$x=70$	$x=71$	$x=72$	$x=73$	$x=74$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.9019	1.8965	1.8906	1.8844	1.8779	2
3	2.7105	2.6949	2.6784	2.6609	2.6423	3
4	3.4306	3.4011	3.3699	3.3370	3.3021	4
5	4.0675	4.0210	3.9720	3.9205	3.8661	5
6	4.6267	4.5608	4.4918	4.4194	4.3429	6
7	5.1136	5.0268	4.9361	4.8410	4.7409	7
8	5.5338	5.4251	5.3116	5.1931	5.0684	8
9	5.8930	5.7618	5.6252	5.4827	5.3333	9
10	6.1967	6.0428	5.8831	5.7170	5.5436	10
11	6.4502	6.2741	6.0918	5.9030	5.7071	11
12	6.6588	6.4611	6.2575	6.0476	5.8311	12
13	6.8275	6.6097	6.3863	6.1573	5.9222	13
14	6.9615	6.7251	6.4839	6.2379	5.9866	14
15	7.0656	6.8127	6.5557	6.2948	6.0297	15
16	7.1446	6.8770	6.6064	6.3329	6.0568	16
17	7.2026	6.9225	6.6404	6.3569	6.0725	17
18	7.2436	6.9529	6.6617	6.3708	6.0808	18
19	7.2711	6.9721	6.6741	6.3781	6.0845	19
20	7.2883	6.9832	6.6806	6.3814	6.0858	20
21	7.2983	6.9890	6.6835	6.3825	6.0861	21
22	7.3036	6.9916	6.6846	6.3828	6.0862	22
23	7.3060	6.9925	6.6848	6.3829		23
24	7.3068	6.9928	6.6849			24
25	7.3070	6.9928				25
26	7.3070					26

n	$x=75$	$x=76$	$x=77$	$x=78$	$x=79$	n
1	1.0000	1.0000	1.0000	1.0000	1.0000	1
2	1.8708	1.8632	1.8547	1.8454	1.8349	2
3	2.6224	2.6009	2.5773	2.5511	2.5217	3
4	3.2649	3.2246	3.1806	3.1317	3.0773	4
5	3.8080	3.7453	3.6768	3.6014	3.5184	5
6	4.2614	4.1737	4.0783	3.9743	3.8614	6
7	4.6344	4.5202	4.3971	4.2642	4.1214	7
8	4.9362	4.7954	4.6448	4.4841	4.3125	8
9	5.1758	5.0093	4.8327	4.6456	4.4475	9
10	5.3620	5.1714	4.9708	4.7597	4.5380	10
11	5.5033	5.2907	5.0684	4.8362	4.5948	11
12	5.6071	5.3748	5.1337	4.8842	4.6278	12
13	5.6804	5.4312	5.1748	4.9121	4.6451	13
14	5.7295	5.4667	5.1986	4.9268	4.6529	14
15	5.7604	5.4873	5.2111	4.9333	4.6556	15
16	5.7783	5.4981	5.2168	4.9357	4.6563	16
17	5.7877	5.5029	5.2187	4.9362	4.6564	17
18	5.7919	5.5046	5.2192	4.9363		18
19	5.7934	5.5051	5.2193			19
20	5.7938	5.5051				20
21	5.7938					

3%

American Experience

x	u_x	c_x	k_x
10	1.037 773	.007 272	.007 547
11	1.037 800	.007 297	.007 573
12	1.037 828	.007 323	.007 600
13	1.037 856	.007 349	.007 627
14	1.037 884	.007 375	.007 654
15	1.037 923	.007 411	.007 692
16	1.037 952	.007 438	.007 720
17	1.037 980	.007 464	.007 748
18	1.038 021	.007 502	.007 787
19	1.038 061	.007 539	.007 826
20	1.038 103	.007 577	.007 866
21	1.038 155	.007 626	.007 917
22	1.038 208	.007 676	.007 969
23	1.038 263	.007 727	.008 022
24	1.038 318	.007 778	.008 076
25	1.038 374	.007 830	.008 130
26	1.038 443	.007 893	.008 197
27	1.038 512	.007 958	.008 264
28	1.038 583	.008 024	.008 333
29	1.038 668	.008 102	.008 415
30	1.038 753	.008 181	.008 498
31	1.038 841	.008 262	.008 583
32	1.038 942	.008 356	.008 682
33	1.039 058	.008 464	.008 795
34	1.039 177	.008 574	.008 910
35	1.039 298	.008 686	.009 027
36	1.039 447	.008 824	.009 172
37	1.039 600	.008 965	.009 320
38	1.039 783	.009 134	.009 498
39	1.039 970	.009 307	.009 679
40	1.040 188	.009 509	.009 891
41	1.040 412	.009 716	.010 109
42	1.040 669	.009 954	.010 359
43	1.040 948	.010 211	.010 629
44	1.041 276	.010 513	.010 947
45	1.041 628	.010 838	.011 289
46	1.042 048	.011 225	.011 697
47	1.042 511	.011 651	.012 146
48	1.043 048	.012 145	.012 668
49	1.043 678	.012 724	.013 280
50	1.044 393	.013 380	.013 974
51	1.045 198	.014 117	.014 755
52	1.046 098	.014 941	.015 629
53	1.047 102	.015 857	.016 604
54	1.048 235	.016 889	.017 704
55	1.049 490	.018 030	.018 922
56	1.050 897	.019 306	.020 289
57	1.052 454	.020 714	.021 800
58	1.054 178	.022 268	.023 474
59	1.056 107	.024 000	.025 347
60	1.058 248	.025 916	.027 425
61	1.060 631	.028 039	.029 739
62	1.063 272	.030 380	.032 302
63	1.066 190	.032 954	.035 136
64	1.069 433	.035 799	.038 285
65	1.073 061	.038 960	.041 807
66	1.077 076	.042 434	.045 704
67	1.081 532	.046 260	.050 031
68	1.086 500	.050 487	.054 854
69	1.091 983	.055 109	.060 178
70	1.098 073	.060 187	.066 090
71	1.104 754	.065 695	.072 576
72	1.111 990	.071 585	.079 602
73	1.119 782	.077 843	.087 167
74	1.128 183	.084 493	.095 323
75	1.137 330	.091 622	.104 204
76	1.147 390	.099 331	.113 971
77	1.158 689	.107 829	.124 941
78	1.171 555	.117 308	.137 433
79	1.186 272	.127 897	.151 720
80	1.203 926	.140 258	.168 861
81	1.224 157	.153 985	.188 502
82	1.247 422	.169 220	.211 089
83	1.274 060	.185 982	.236 952
84	1.306 044	.205 203	.268 004
85	1.347 377	.228 691	.308 133
86	1.402 660	.257 943	.361 806
87	1.477 805	.294 195	.434 762
88	1.576 591	.336 594	.530 670
89	1.704 911	.384 333	.655 254
90	1.888 333	.441 306	.833 333
91	2.203 056	.516 959	1.138 889
92	2.816 203	.615 786	1.734 177
93	3.874 756	.712 793	2.761 905
94	7.210 046	.832 177	6.000 000
95	∞	.970 874	∞

$$u_x = \frac{\mathrm{D}_x}{\mathrm{D}_{x+1}} = \frac{(1+i)l_x}{l_{x+1}} = \frac{1}{vp_x}$$

$$c_x = \frac{\mathrm{C}_x}{\mathrm{D}_x} = \frac{vd_x}{l_x} = vq_x$$

$$k_x = \frac{\mathrm{C}_x}{\mathrm{D}_{x+1}} = \frac{d_x}{l_{x+1}} = \frac{q_x}{p_x} = u_x c_x$$

American Experience $3\frac{1}{2}\%$

x	u_x	c_x	k_x	x	u_x	c_x	k_x
10	1.042 811	.007 237	.007 547	60	1.063 385	.025 791	.027 425
11	1.042 838	.007 262	.007 573	61	1.065 779	.027 903	.029 739
12	1.042 866	.007 288	.007 600	62	1.068 434	.030 234	.032 302
13	1.042 894	.007 313	.007 627	63	1.071 366	.032 795	.035 136
14	1.042 922	.007 339	.007 654	64	1.074 625	.035 626	.038 285
15	1.042 962	.007 375	.007 692	65	1.078 269	.038 772	.041 807
16	1.042 990	.007 402	.007 720	66	1.082 303	.042 229	.045 704
17	1.043 019	.007 428	.007 748	67	1.086 783	.046 036	.050 031
18	1.043 059	.007 465	.007 787	68	1.091 773	.050 243	.054 854
19	1.043 100	.007 503	.007 826	69	1.097 287	.054 843	.060 178
20	1.043 141	.007 541	.007 866	70	1.103 401	.059 896	.066 090
21	1.043 195	.007 590	.007 917	71	1.110 118	.065 377	.072 576
22	1.043 249	.007 639	.007 969	72	1.117 389	.071 239	.079 602
23	1.043 303	.007 689	.008 022	73	1.125 215	.077 467	.087 167
24	1.043 359	.007 740	.008 076	74	1.133 661	.084 085	.095 323
25	1.043 414	.007 792	.008 130	75	1.142 855	.091 179	.104 204
26	1.043 484	.007 855	.008 197	76	1.152 959	.098 851	.113 971
27	1.043 553	.007 920	.008 264	77	1.164 309	.107 308	.124 941
28	1.043 627	.007 985	.008 333	78	1.177 241	.116 741	.137 433
29	1.043 708	.008 063	.008 415	79	1.192 034	.127 279	.151 720
30	1.043 798	.008 142	.008 498	80	1.209 771	.139 581	.168 861
31	1.043 884	.008 222	.008 583	81	1.230 100	.153 241	.188 502
32	1.043 983	.008 316	.008 682	82	1.253 477	.168 403	.211 089
33	1.044 104	.008 423	.008 795	83	1.280 244	.185 083	.236 952
34	1.044 221	.008 532	.008 910	84	1.312 382	.204 211	.268 004
35	1.044 344	.008 644	.009 027	85	1.353 919	.227 586	.308 133
36	1.044 491	.008 781	.009 172	86	1.409 469	.256 696	.361 806
37	1.044 648	.008 922	.009 320	87	1.484 980	.292 773	.434 762
38	1.044 830	.009 090	.009 498	88	1.584 244	.334 968	.530 670
39	1.045 019	.009 262	.009 679	89	1.713 187	.382 476	.655 254
40	1.045 238	.009 463	.009 891	90	1.897 503	.439 174	.833 333
41	1.045 461	.009 669	.010 109	91	2.213 745	.514 461	1.138 889
42	1.045 720	.009 906	.010 359	92	2.829 879	.612 811	1.734 177
43	1.046 000	.010 161	.010 629	93	3.893 568	.709 350	2.761 905
44	1.046 331	.010 463	.010 947	94	7.245 001	.828 157	6.000 000
45	1.046 689	.010 786	.011 289	95	∞	.966 184	∞
46	1.047 102	.011 171	.011 697				
47	1.047 574	.011 595	.012 146				
48	1.048 108	.012 086	.012 668				
49	1.048 749	.012 663	.013 280				
50	1.049 456	.013 315	.013 974				
51	1.050 276	.014 049	.014 755				
52	1.051 180	.014 869	.015 629				
53	1.052 183	.015 781	.016 604				
54	1.053 322	.016 807	.017 704				
55	1.054 585	.017 943	.018 922				
56	1.055 998	.019 213	.020 289				
57	1.057 564	.020 614	.021 800				
58	1.059 295	.022 160	.023 474				
59	1.061 235	.023 884	.025 347				

$$u_x = \frac{\mathrm{D}_x}{\mathrm{D}_{x+1}} = \frac{(1+i)l_x}{l_{x+1}} = \frac{1}{vp_x}$$

$$c_x = \frac{\mathrm{C}_x}{\mathrm{D}_x} = \frac{vd_x}{l_x} = vq_x$$

$$k_x = \frac{\mathrm{C}_x}{\mathrm{D}_{x+1}} = \frac{d_x}{l_{x+1}} = \frac{q_x}{p_x} = u_x c_x$$

4%

American Experience

x	u_x	c_x	k_x	x	u_x	c_x	k_x
10	1.047 848	.007 202	.007 547	60	1.068 523	.025 667	.027 425
11	1.047 876	.007 227	.007 573	61	1.070 928	.027 769	.029 739
12	1.047 904	.007 253	.007 600	62	1.073 595	.030 088	.032 302
13	1.047 932	.007 278	.007 627	63	1.076 541	.032 638	.035 136
14	1.047 961	.007 304	.007 654	64	1.079 816	.035 455	.038 285
15	1.048 000	.007 340	.007 692	65	1.083 478	.038 585	.041 807
16	1.048 029	.007 366	.007 720	66	1.087 533	.042 026	.045 704
17	1.048 058	.007 393	.007 748	67	1.092 033	.045 815	.050 031
18	1.048 098	.007 430	.007 787	68	1.097 048	.050 002	.054 854
19	1.048 139	.007 467	.007 826	69	1.102 585	.054 579	.060 178
20	1.048 181	.007 504	.007 866	70	1.108 734	.059 608	.066 090
21	1.048 235	.007 553	.007 917	71	1.115 479	.065 063	.072 576
22	1.048 288	.007 602	.007 969	72	1.122 786	.070 897	.079 602
23	1.048 343	.007 652	.008 022	73	1.130 653	.077 094	.087 167
24	1.048 399	.007 703	.008 076	74	1.139 136	.083 680	.095 323
25	1.048 455	.007 754	.008 130	75	1.148 374	.090 741	.104 204
26	1.048 525	.007 817	.008 197	76	1.158 529	.098 375	.113 971
27	1.048 593	.007 881	.008 264	77	1.169 939	.106 793	.124 941
28	1.048 666	.007 947	.008 333	78	1.182 930	.116 180	.137 433
29	1.048 752	.008 024	.008 415	79	1.197 789	.126 667	.151 720
30	1.048 838	.008 103	.008 498	80	1.215 615	.138 910	.168 861
31	1.048 927	.008 183	.008 583	81	1.236 042	.152 504	.188 502
32	1.049 029	.008 276	.008 682	82	1.259 533	.167 593	.211 089
33	1.049 146	.008 383	.008 795	83	1.286 430	.184 193	.236 952
34	1.049 266	.008 491	.008 910	84	1.318 724	.203 230	.268 004
35	1.049 388	.008 602	.009 027	85	1.360 458	.226 492	.308 133
36	1.049 539	.008 739	.009 172	86	1.416 278	.255 462	.361 806
37	1.049 693	.008 879	.009 320	87	1.492 154	.291 366	.434 762
38	1.049 877	.009 046	.009 498	88	1.591 897	.333 357	.530 670
39	1.050 067	.009 218	.009 679	89	1.721 465	.380 638	.655 254
40	1.050 286	.009 418	.009 891	90	1.906 667	.437 063	.833 333
41	1.050 511	.009 623	.010 109	91	2.224 443	.511 988	1.138 889
42	1.050 775	.009 858	.010 359	92	2.843 546	.609 864	1.734 177
43	1.051 054	.010 113	.010 629	93	3.912 378	.705 941	2.761 905
44	1.051 386	.010 412	.010 947	94	7.280 037	.824 177	6.000 000
45	1.051 741	.010 734	.011 289	95	∞	.961 538	∞
46	1.052 165	.011 117	.011 697				
47	1.052 632	.011 539	.012 146				
48	1.053 175	.012 028	.012 668				
49	1.053 811	.012 602	.013 280				
50	1.054 533	.013 251	.013 974				
51	1.055 345	.013 981	.014 755				
52	1.056 255	.014 797	.015 629				
53	1.057 269	.015 705	.016 604				
54	1.058 412	.016 727	.017 704				
55	1.059 679	.017 857	.018 922				
56	1.061 100	.019 120	.020 289				
57	1.062 673	.020 515	.021 800				
58	1.064 413	.022 053	.023 474				
59	1.066 361	.023 769	.025 347				

$$u_x = \frac{\mathrm{D}_x}{\mathrm{D}_{x+1}} = \frac{(1+i)l_x}{l_{x+1}} = \frac{1}{vp_x}$$

$$c_x = \frac{\mathrm{C}_x}{\mathrm{D}_x} = \frac{vd_x}{l_x} = vq_x$$

$$k_x = \frac{\mathrm{C}_x}{\mathrm{D}_{x+1}} = \frac{d_x}{l_{x+1}} = \frac{q_x}{p_x} = u_x c_x$$

Hunter's Makehamized American Experience Table of Mortality

x	l_x	d_x	q_x	μ_x	x	l_x	d_x	q_x	μ_x
10	100081	766	.00765	.00768	60	57812	1512	.02615	.02553
11	99315	762	.00767	.00769	61	56300	1589	.02822	.02752
12	98553	757	.00768	.00770	62	54711	1667	.03047	.02974
13	97796	752	.00769	.00772	63	53044	1750	.03299	.03220
14	97044	748	.00771	.00773	64	51294	1835	.03577	.03494
15	96296	744	.00773	.00775	65	49459	1923	.03888	.03798
16	95552	740	.00774	.00776	66	47536	2010	.04228	.04136
17	94812	736	.00776	.00778	67	45526	2097	.04606	.04512
18	94076	733	.00779	.00781	68	43429	2183	.05027	.04929
19	93343	729	.00781	.00783	69	41246	2264	.05489	.05393
20	92614	726	.00784	.00786	70	38982	2340	.06003	.05908
21	91888	723	.00787	.00788	71	36642	2407	.06569	.06481
22	91165	721	.00791	.00792	72	34235	2462	.07191	.07117
23	90444	718	.00794	.00795	73	31773	2504	.07881	.07824
24	89726	716	.00798	.00799	74	29269	2530	.08644	.08610
25	89010	715	.00803	.00804	75	26739	2535	.09481	.09483
26	88295	714	.00809	.00809	76	24204	2517	.10399	.10453
27	87581	713	.00814	.00814	77	21687	2476	.11417	.11531
28	86868	712	.00820	.00821	78	19211	2406	.12524	.12729
29	86156	714	.00829	.00827	79	16805	2310	.13746	.14060
30	85442	714	.00836	.00835	80	14495	2186	.15081	.15540
31	84728	715	.00844	.00843	81	12309	2036	.16541	.17183
32	84013	718	.00855	.00853	82	10273	1863	.18135	.19010
33	83295	720	.00864	.00863	83	8410	1671	.19869	.21040
34	82575	725	.00878	.00875	84	6739	1465	.21739	.23295
35	81850	729	.00891	.00888	85	5274	1255	.23796	.25801
36	81121	734	.00905	.00902	86	4019	1045	.26001	.28586
37	80387	741	.00922	.00918	87	2974	844	.28379	.31681
38	79646	750	.00942	.00935	88	2130	659	.30939	.35120
39	78896	758	.00961	.00955	89	1471	495	.33651	.38941
40	78138	769	.00984	.00977	90	976	357	.36578	.43187
41	77369	780	.01008	.01001	91	619	245	.39580	.47905
42	76589	795	.01038	.01028	92	374	160	.42781	.53149
43	75794	809	.01067	.01058	93	214	99	.46262	.58975
44	74985	827	.01103	.01091	94	115	57	.49565	.65449
45	74158	847	.01142	.01128	95	58	31	.53448	.72643
46	73311	868	.01184	.01169	96	27	16	.59259	.80637
47	72443	892	.01231	.01215	97	11	7	.63636	.89521
48	71551	920	.01286	.01265	98	4	3	.75000	.99392
49	70631	948	.01342	.01321	99	1	1	1.00000	
50	69683	981	.01408	.01384					
51	68702	1017	.01480	.01453					
52	67685	1057	.01562	.01531					
53	66628	1099	.01649	.01617					
54	65529	1146	.01749	.01712					
55	64383	1196	.01858	.01818					
56	63187	1251	.01980	.01936					
57	61936	1310	.02115	.02066					
58	60626	1373	.02265	.02212					
59	59253	1441	.02432	.02373					

$$\log l_x = \log k + x \log s + c^x \log g$$

$$\log c = .04579609$$
$$\log s = -.003296862$$
$$\log g = -.00013205$$
$$\log k = 5.03370116$$

Commutation Columns, Two Lives, Equal Ages
Hunter's Makehamized American Experience
Table of Mortality, 3½%

x	D_{xx}	N_{xx}	C_{xx}	M_{xx}	S_{xx}	x
10	71 006.79	1 351 270.60	1 046.18	25 312.24	22 585 544.	10
11	67 559.44	1 280 263.81	997.89	24 266.06	21 231 273.	11
12	64 276.96	1 212 704.37	950.41	23 268.17	19 951 009.	12
13	61 152.96	1 148 427.41	905.15	22 317.76	18 738 305.	13
14	58 179.86	1 087 274.45	863.22	21 412.61	17 589 877.	14
15	55 349.23	1 029 094.59	823.22	20 549.39	16 502 603.	15
16	52 654.32	973 745.36	784.93	19 726.17	15 473 508.	16
17	50 088.83	921 091.04	748.50	18 941.24	14 499 763.	17
18	47 646.53	871 002.21	714.56	18 192.74	13 578 672.	18
19	45 320.75	823 355.68	681.32	17 478.18	12 707 670.	19
20	43 106.86	778 034.93	650.43	16 796.86	11 884 314.	20
21	40 998.73	734 928.07	620.91	16 146.43	11 106 279.	21
22	38 991.41	693 929.34	593.55	15 525.52	10 371 351.	22
23	37 079.33	654 937.93	566.61	14 931.97	9 677 421.7	23
24	35 258.85	617 858.60	541.54	14 365.36	9 022 483.8	24
25	33 525.00	582 599.75	518.28	13 823.82	8 404 625.2	25
26	31 873.04	549 074.75	496.09	13 305.54	7 822 025.4	26
27	30 299.13	517 201.71	474.73	12 809.45	7 272 950.7	27
28	28 799.80	486 902.58	454.28	12 334.72	6 755 748.9	28
29	27 371.63	458 102.78	436.55	11 880.44	6 268 846.4	29
30	26 009.48	430 731.15	418.24	11 443.89	5 810 743.6	30
31	24 711.70	404 721.67	401.24	11 025.65	5 380 012.5	31
32	23 474.81	380 009.97	386.04	10 624.41	4 975 290.8	32
33	22 294.96	356 535.16	370.80	10 238.37	4 595 280.8	33
34	21 170.22	334 240.20	357.60	9 867.57	4 238 745.7	34
35	20 096.73	313 069.98	344.34	9 509.97	3 904 505.7	35
36	19 072.80	292 973.25	331.97	9 165.63	3 591 435.5	36
37	18 095.86	273 900.45	320.87	8 833.66	3 298 462.2	37
38	17 163.06	255 804.59	310.81	8 512.79	3 024 561.8	38
39	16 271.86	238 641.53	300.71	8 201.98	2 768 757.2	39
40	15 420.90	222 369.67	291.83	7 901.27	2 530 115.7	40
41	14 607.60	206 948.77	283.13	7 609.44	2 307 746.0	41
42	13 830.50	192 341.17	275.97	7 326.31	2 100 797.2	42
43	13 086.84	178 510.67	268.51	7 050.34	1 908 456.1	43
44	12 375.79	165 423.83	262.30	6 781.83	1 729 945.4	44
45	11 694.99	153 048.04	256.63	6 519.53	1 564 521.6	45
46	11 042.88	141 353.05	251.15	6 262.90	1 411 473.5	46
47	10 418.30	130 310.17	246.40	6 011.75	1 270 120.5	47
48	9 819.595	119 891.87	242.40	5 765.35	1 139 810.3	48
49	9 245.132	110 072.28	238.19	5 522.95	1 019 918.4	49
50	8 694.313	100 827.14	234.86	5 284.76	909 846.14	50
51	8 165.446	92 132.83	231.84	5 049.90	809 019.00	51
52	7 657.482	83 967.384	229.26	4 818.06	716 886.17	52
53	7 169.279	76 309.902	226.62	4 588.80	632 918.78	43
54	6 700.222	69 140.623	224.47	4 362.18	556 608.88	54
55	6 249.176	62 440.401	222.24	4 137.71	487 468.26	55
56	5 815.616	56 191.225	220.30	3 915.47	425 027.86	56
57	5 398.652	50 375.609	218.31	3 695.17	368 836.63	57
58	4 997.777	44 976.957	216.23	3 476.86	318 461.02	58
59	4 612.539	39 979.180	214.14	3 260.63	273 484.07	59

Commutation Columns, Two Lives, Equal Ages
Hunter's Makehamized American Experience
Table of Mortality, 3½%

x	D_{xx}	N_{xx}	C_{xx}	M_{xx}	S_{xx}	x
60	4 242.422	35 366.641	211.59	3 046.49	233 504.89	60
61	3 887.371	31 124.219	209.01	2 834.90	198 138.24	61
62	3 546.903	27 236.848	205.68	2 625.89	167 014.03	62
63	3 221.281	23 689.945	201.96	2 420.21	139 777.18	63
64	2 910.389	20 468.664	197.60	2 218.25	116 087.23	64
65	2 614.369	17 558.275	192.60	2 020.65	95 618.568	65
66	2 333.359	14 943.906	186.63	1 828.05	78 060.293	66
67	2 067.829	12 610.547	179.82	1 641.42	63 116.387	67
68	1 818.085	10 542.718	172.15	1 461.60	50 505.840	68
69	1 584.460	8 724.633	163.46	1 289.45	39 963.122	69
70	1 367.424	7 140.173	153.86	1 125.99	31 238.489	70
71	1 167.328	5 772.749	143.31	972.13	24 098.316	71
72	984.5449	4 605.420 8	131.91	828.82	18 325.567	72
73	819.3494	3 620.875 9	119.86	696.96	13 720.146	73
74	671.7868	2 801.526 5	107.36	577.05	10 099.270	74
75	541.7073	2 129.739 7	94.53 5	469.69	7 297.743 3	75
76	428.8537	1 588.032 4	81.69 9	375.151	5 168.003 6	76
77	332.6521	1 159.178 7	69.19 7	293.452	3 579.971 2	77
78	252.2062	826.526 6	57.21 4	224.255	2 420.792 5	78
79	186.4627	574.320 4	46.12 5	167.041	1 594.265 9	79
80	134.0323	387.857 7	36.11 4	120.916	1 019.945 5	80
81	93.3856 1	253.825 4	27.38 1	84.801 6	632.087 83	81
82	62.8468 7	160.439 8	20.02 6	57.420 6	378.262 43	82
83	40.6955 4	97.592 91	14.07 2	37.394 6	217.822 63	83
84	25.2466 2	56.897 37	9.45 29	23.322 6	120.229 72	84
85	14.9400 3	31.650 75	6.05 24	13.869 7	63.332 354	85
86	8.3824 28	16.710 72	3.66 42	7.817 29	31.681 604	86
87	4.4348 08	8.328 292	2.08 69	4.153 09	14.970 884	87
88	2.1979 02	3.893 484	1.11 07	2.066 19	6.642 592	88
89	1.0128 28	1.695 582	.54 779	.955 492	2.749 108	89
90	.4307 929	.682 754	.24 880	.407 702	1.053 526	90
91	.1674 209	.251 962	.10 271	.158 902	.370 772	91
92	.0590 515	.0845 412	.038 374	.0561 918	.118 802	92
93	.0186 799	.0254 897	.012 836	.0178 178	.0342 691	93
94	.0052 119	.00680 984	.0037 552	.00498 178	.00877 981	94
95	.0012 809	.00159 794	.00096 910	.00122 658	.00196 997	95
96	.00026 820	.000317 038	.00021 612	.000257 479	.000372 035	96
97	.000043 011	.0000488 379	.000036 066	.0000413 592	.0000549 965	97
98	.0000054 950	.00000582 682	.0000049 724	.00000529 317	.00000615 864	98
99	.00000033 182	.00000033 182	.00000032 060	.00000032 060	.00000033 182	99

Life Annuity Due, Single Premium and Annual Premium, Two Lives, Equal Ages Hunter's Makehamized American Experience Table of Mortality, 3½%

x	a_{xx}	A_{xx}	P_{xx}	x	a_{xx}	A_{xx}	P_{xx}
10	19.0302	356.48	18.73	60	8.3364	718.10	86.14
11	18.9449	359.18	18.96	61	8.0065	729.26	91.08
12	18.8669	362.00	19.19	62	7.6790	740.33	96.41
13	18.7796	364.95	19.43	63	7.3542	751.32	102.16
14	18.6881	368.04	19.69	64	7.0330	762.18	108.37
15	18.5928	371.27	19.97	65	6.7161	772.90	115.08
16	18.4932	374.64	20.26	66	6.4045	783.44	122.33
17	18.3891	378.15	20.56	67	6.0984	793.79	130.16
18	18.2805	381.83	20.88	68	5.7988	803.92	138.64
19	18.1673	385.66	21.23	69	5.5064	813.81	147.79
20	18.0490	389.66	21.59	70	5.2216	823.44	157.70
21	17.9256	393.83	21.97	71	4.9453	832.78	168.40
22	17.7970	398.18	22.37	72	4.6777	841.83	179.97
23	17.6632	402.70	22.80	73	4.4192	850.63	192.49
24	17.5235	407.43	23.25	74	4.1703	858.98	205.98
25	17.3781	412.34	23.73	75	3.9315	867.05	220.54
26	17.2269	417.45	24.23	76	3.7030	874.78	236.24
27	17.0699	422.77	24.77	77	3.4847	882.16	253.15
28	16.9064	428.29	25.33	78	3.2771	889.17	271.33
29	16.7364	434.04	25.93	79	3.0801	895.84	290.85
30	16.5605	439.99	26.57	80	2.8938	902.14	311.75
31	16.3774	446.17	27.24	81	2.7180	908.08	334.10
32	16.1880	452.59	27.96	82	2.5529	913.66	357.89
33	15.9918	459.22	28.72	83	2.3981	918.89	383.14
34	15.7882	466.11	29.52	84	2.2537	923.79	409.90
35	15.5781	473.21	30.38	85	2.1186	928.36	438.20
36	15.3608	480.56	31.28	86	1.9936	932.58	467.79
37	15.1361	488.16	32.25	87	1.8778	936.48	498.71
38	14.9044	495.99	33.28	88	1.7360	940.07	541.51
39	14.6659	504.06	34.37	89	1.6741	943.39	563.52
40	14.4200	512.37	35.53	90	1.5849	946.40	597.14
41	14.1672	520.92	36.77	91	1.5050	949.12	630.64
42	13.9070	529.72	38.09	92	1.4316	951.57	664.69
43	13.6405	538.74	39.50	93	1.3645	953.86	699.05
44	13.3667	547.99	41.00	94	1.3066	955.85	731.56
45	13.0867	557.46	42.60	95	1.2475	957.59	767.61
46	12.8004	567.14	44.31	96	1.1821	960.03	812.14
47	12.5079	577.04	46.13	97	1.1355	961.60	846.85
48	12.2095	587.13	48.09	98	1.0604	963.31	908.44
49	11.9060	597.39	50.18	99	1.0000	966.19	966.19
50	11.5969	607.84	52.41				
51	11.2833	618.45	54.81				
52	10.9654	629.20	57.38				
53	10.6440	640.06	60.13				
54	10.3192	651.05	63.09				
55	9.9918	662.12	66.27				
56	9.6621	673.27	69.68				
57	9.3311	684.46	73.35				
58	8.9994	695.68	77.30				
59	8.6675	706.91	81.56				

Valuation Columns, Two Lives, Equal Ages
Hunter's Makehamized American Experience Table of Mortality, $3\frac{1}{2}\%$

x	u_{xx}	c_{xx}	k_{xx}	x	u_{xx}	c_{xx}	k_{xx}
10	1.051 027	.014 734	.015 485	60	1.091 334	.049 875	.054 434
11	1.051 068	.014 770	.015 524	61	1.095 990	.053 766	.058 931
12	1.051 085	.014 786	.015 541	62	1.101 084	.057 989	.063 841
13	1.051 102	.014 801	.015 558	63	1.106 821	.062 696	.069 398
14	1.051 141	.014 837	.015 596	64	1.113 228	.067 895	.075 579
15	1.051 181	.014 873	.015 633	65	1.120 432	.073 670	.082 544
16	1.051 219	.014 907	.015 671	66	1.128 410	.079 983	.090 250
17	1.051 259	.014 944	.015 708	67	1.137 366	.086 961	.098 903
18	1.051 318	.014 994	.015 767	68	1.147 448	.094 688	.108 654
19	1.051 358	.015 033	.015 805	69	1.158 719	.103 164	.119 529
20	1.051 419	.015 089	.015 864	70	1.171 414	.112 518	.131 801
21	1.051 481	.015 145	.015 924	71	1.185 652	.122 767	.145 560
22	1.051 567	.015 223	.016 007	72	1.201 620	.133 981	.160 979
23	1.051 632	.015 281	.016 068	73	1.219 660	.146 287	.178 422
24	1.051 718	.015 359	.016 153	74	1.240 129	.159 813	.198 189
25	1.051 829	.015 460	.016 261	75	1.263 152	.174 513	.220 439
26	1.051 945	.015 565	.016 371	76	1.289 195	.190 506	.245 591
27	1.052 060	.015 668	.016 483	77	1.318 969	.208 016	.274 380
28	1.052 177	.015 774	.016 596	78	1.352 583	.226 854	.306 841
29	1.052 371	.015 949	.016 783	79	1.391 177	.247 368	.344 128
30	1.052 517	.016 080	.016 925	80	1.435 256	.269 442	.386 727
31	1.052 690	.016 237	.017 094	81	1.485 923	.293 204	.435 658
32	1.052 920	.016 445	.017 314	82	1.544 318	.318 648	.492 116
33	1.053 128	.016 632	.017 515	83	1.611 920	.345 787	.557 403
34	1.053 416	.016 892	.017 794	84	1.689 864	.374 422	.632 716
35	1.053 685	.017 134	.018 054	85	1.782 303	.405 113	.722 044
36	1.053 987	.017 423	.018 345	86	1.890 145	.437 129	.826 224
37	1.054 349	.017 732	.018 694	87	2.017 746	.470 573	.949 498
38	1.054 769	.018 109	.019 103	88	2.170 064	.505 346	1.096 688
39	1.055 182	.018 480	.019 496	89	2.351 079	.540 852	1.271 568
40	1.055 677	.018 924	.019 978	90	2.573 113	.577 540	1.486 099
41	1.056 188	.019 382	.020 472	91	2.835 167	.613 484	1.739 291
42	1.056 825	.019 954	.021 088	92	3.161 232	.649 840	2.054 328
43	1.057 455	.020 518	.021 694	93	3.584 086	.687 155	2.462 836
44	1.058 213	.021 195	.022 428	94	4.068 936	.720 505	2.931 332
45	1.059 052	.021 944	.023 241	95	4.775 913	.756 577	3.614 540
46	1.059 950	.022 743	.024 107	96	6.235 614	.805 817	5.024 793
47	1.060 970	.023 651	.025 089	97	7.827 297	.838 530	6.562 500
48	1.062 137	.024 685	.026 221	98	16.560 183	.904 895	15.000 000
49	1.063 354	.025 764	.027 394	99	∞	.966 184	∞
50	1.064 769	.027 013	.028 762				
51	1.066 336	.028 393	.030 277				
52	1.068 097	.029 939	.031 980				
53	1.070 006	.031 610	.033 824				
54	1.072 177	.033 502	.035 916				
55	1.074 551	.035 563	.038 214				
56	1.077 234	.037 881	.040 805				
57	1.080 211	.040 438	.043 683				
58	1.083 520	.043 265	.046 881				
59	1.087 242	.046 426	.050 473				

$$u_{xx} = \frac{D_{xx}}{D_{x+1:x+1}} = \frac{(1+i)l_{xx}}{l_{x+1:x+1}} = \frac{1}{vp_{xx}}$$

$$c_{xx} = \frac{C_{xx}}{D_{xx}} = \frac{v(l_{xx} - l_{x+1:x+1})}{l_{xx}} = v(1-p_{xx}) = vq_{xx}$$

$$k_{xx} = \frac{C_{xx}}{D_{x+1:x+1}} = \frac{l_{xx} - l_{x+1:x+1}}{l_{x+1:x+1}}$$

$$= \frac{1-p_{xx}}{p_{xx}} = \frac{q_{xx}}{p_{xx}} = u_{xx}c_{xx}$$

LIFE TABLE FOR WHITE MALES IN THE

BASED ON THE ESTIMATED POPULATION JULY 1, 1910 (11,932,963), AND ON THE

NOTE.—The original registration states include Maine, New Hampshire, Vermont, Massachusetts,

AGE INTERVAL.	OF 100,000 MALES BORN ALIVE:		RATE OF MORTALITY PER THOUSAND.	COMPLETE EXPECTATION OF LIFE.	STATIONARY MALE POPULATION. Unaffected by Emigration and Immigration, which, Assuming the Mortality Rates in Column 4, would result if 100,000 Males were Born Alive Uniformly Throughout Each Year.			
					POPULATION IN CURRENT AGE INTERVAL.	MEASURE OF VITALITY.	POPULATION IN CURRENT AND ALL OLDER AGE INTERVALS.	DEATH RATE PER THOUSAND.
Period of lifetime between two exact ages.	Number alive at beginning of age interval.	Number dying in age interval	Number dying in age interval among 1,000 alive at beginning of age interval.	Average length of life remaining to each one alive at beginning of age interval.	Including only those in current month or year of age.	Population per death in age interval.	Sum of numbers in column 6 in current and all older age intervals.	Average annual death rate per thousand of population in current and all older age intervals.
x to $x+1$	l_x	d_x	$1000q_x$	$\mathring{e}_x$	L_x	L_x/d_x	T_x	$1000/_x/T_x$
1	2	3	4	5	6	7	8	9
INFANT MORTALITY—FIRST YEAR OF LIFE BY AGE INTERVALS OF ONE MONTH.								
Months.			Monthly rate.	In years.		Per month.		Annual rate.
0-1	100 000	4 844	48.44	50.23	8 031	19.92	5 023 371	19.91
1-2	95 156	1 242	13.05	52.74	7 878	76.08	5 015 340	18.87
2-3	93 914	1 012	10.78	53.32	7 784	92.28	5 007 462	18.75
3-4	92 902	863	9.28	53.82	7 706	107.16	4 999 678	18.58
4-5	92 039	750	8.15	54.24	7 639	122.28	4 991 972	18.44
5-6	91 289	673	7.37	54.60	7 579	135.12	4 984 333	18.42
6-7	90 616	610	6.73	54.92	7 526	148.08	4 976 754	18 21
7-8	90 006	553	6.15	55.21	7 477	162.24	4 969 228	18.11
8-9	89 453	503	5.62	55.47	7 433	177.36	4 961 751	18.03
9-10	88 950	457	5.14	55.70	7 393	194.16	4 954 318	17.95
10-11	88 493	420	4.74	55.90	7 357	210.24	4 946 925	17 89
11-12	88 073	399	4.53	56.08	7 323	220.20	4 939 568	17 84
LIFE TABLE FOR WHOLE RANGE OF LIFE BY AGE INTERVALS OF ONE YEAR								
Years.			Annual rate.	In years.		Per year.		Annual rate.
0-1	100 000	12 326	123.26	50.23	91 126	7.39	5 023 371	19.91
1-2	87 674	2 473	28.21	56.26	86 215	34.86	4 932 245	17.77
2-3	85 201	1 084	12.73	56.88	84 626	78.07	4 846 030	17.58
3-4	84 117	668	7.93	56.60	83 770	125.40	4 761 404	17.67
4-5	83 449	477	5.72	56.05	83 201	174.43	4 677 634	17.84
5-6	82 972	391	4.71	55.37	82 777	211.71	4 594 433	18.06
6-7	82 581	330	4.00	54.63	82 416	249.75	4 511 656	18.30
7-8	82 251	280	3.40	53.85	82 111	293.25	4 429 240	18.57
8-9	81 971	240	2.93	53.03	81 851	341.05	4 347 129	18.86
9-10	81 731	212	2.59	52.19	81 625	385.02	4 265 278	19.16
10-11	81 519	194	2.38	51.32	81 422	419.70	4 183 653	19.49
11-12	81 325	185	2.28	50.44	81 242	439.09	4 102 231	19.84
12-13	81 140	186	2.29	49.56	81 047	435.74	4 020 989	20.18
13-14	80 954	195	2.41	48.67	80 856	414.65	3 939 952	20.55
14-15	80 759	210	2.59	47.79	80 654	384.07	3 859 096	20.92
15-16	80 549	228	2.83	46.91	80 435	352.79	3 778 442	21.32
16-17	80 321	253	3.15	46.04	80 195	316.98	3 698 007	21.72
17-18	80 068	283	3.55	45.18	79 926	282.42	3 617 812	22.14
18-19	79 785	318	3.98	44.34	79 626	250.40	3 537 886	22.55
19-20	79 467	351	4.42	43.52	79 291	225.90	3 458 260	22.98
20-21	79 116	387	4.89	42.71	78 922	203.93	3 378 969	23 41
21-22	78 729	414	5.24	41.92	78 522	190.43	3 300 047	23.85
22-23	78 316	422	5.39	41.13	78 105	185.08	3 221 525	24.41
23-24	77 894	422	5.42	40.36	77 684	184.08	3 143 420	24.78
24-25	77 472	425	5.48	39.57	77 259	181.79	3 065 737	25.27
25-26	77 047	426	5.54	38.79	76 834	180.46	2 988 478	25 78
26-27	76 621	432	5.64	38.00	76 405	176.86	2 911 644	26.32
27-28	76 189	444	5.82	37.21	75 968	171.10	2 835 239	26.87
28-29	75 746	460	6.07	36.43	75 516	164.17	2 759 271	27.45
29-30	75 286	476	6.33	35.65	75 048	157.66	2 684 755	28.05
30-31	74 810	494	6.60	34.87	74 564	150.94	2 608 707	28 68
31-32	74 316	515	6.93	34.10	74 058	143.80	2 534 144	29.33
32-33	73 801	540	7.31	33.33	73 531	136.17	2 460 086	30.00
33-34	73 261	561	7.70	32.58	72 979	129.10	2 386 555	30.69
34-35	72 697	589	8.10	31.82	72 402	122.92	2 313 576	31.44
35-36	72 108	614	8.52	31.08	71 801	116.94	2 241 174	32.18
36-37	71 494	636	8.90	30.34	71 176	111.91	2 169 373	32.96
37-38	70 858	651	9.23	29.61	70 531	107.85	2 098 197	33.77
38-39	70 207	670	9.51	28.88	69 869	104.28	2 027 666	34 64
39-40	69 541	686	9.87	28.16	69 191	100.86	1 957 797	35.51
40-41	68 848	704	10.22	27.43	68 496	97.30	1 888 606	36.46
41-42	68 144	722	10.60	26.71	67 783	93.88	1 820 110	37.44
42-43	67 422	744	11.04	25.99	67 050	90.12	1 752 327	38.48
43-44	66 678	769	11.52	25.27	66 294	86.21	1 685 277	39.57
44-45	65 909	791	12.05	24.56	65 512	82.51	1 618 983	40.72

ORIGINAL REGISTRATION STATES: 1910.

REPORTED DEATHS IN 1909 (182,373), IN 1910 (194,791), AND IN 1911 (190,497).

Rhode Island, Connecticut, New York, New Jersey, Indiana, Michigan, and the District of Columbia.

AGE INTERVAL.	OF 100,000 MALES BORN ALIVE:		RATE OF MORTALITY PER THOUSAND.	COMPLETE EXPECTATION OF LIFE.	STATIONARY MALE POPULATION, Unaffected by Emigration and Immigration, which, Assuming the Mortality Rates in Column 4, would result if 100,000 Males were Born Alive Uniformly Throughout Each Year.			
					POPULATION IN CURRENT AGE INTERVAL.	MEASURE OF VITALITY.	POPULATION IN CURRENT AND ALL OLDER AGE INTERVALS.	DEATH RATE PER THOUSAND
Period of lifetime between two exact ages.	Number alive at beginning of age interval.	Number dying in age interval.	Number dying in age interval among 1,000 alive at beginning of age interval.	Average length of life remaining to each one alive at beginning of age interval.	Including only those in current month or year of age.	Population per death in age interval.	Sum of numbers in column 6 in current and all older age intervals.	Average annual death rate per thousand of population in current and all older age intervals.
x to $x+1$	l_x	d_x	$1000q_x$	$\mathring{e}_x$	L_x	L_x/d_x	T_x	$1000l_x/T_x$
1	2	3	4	5	6	7	8	9

LIFE TABLE FOR WHOLE RANGE OF LIFE BY AGE INTERVALS OF ONE YEAR—Continued.

Years.			Annual rate.	In years.		Per year.		Annual rate.
45-46	65 115	823	12.64	23.86	64 703	78.62	1 553 471	41.91
46-47	64 292	852	13.25	23.16	63 866	74.96	1 488 768	43.18
47-48	63 440	877	13.83	22.46	63 001	71.84	1 424 902	44.52
48-49	62 563	909	14.37	21.77	62 113	69.01	1 361 901	45.93
49-50	61 663	922	14.95	21.08	61 202	66.38	1 299 788	47.44
50-51	60 741	943	15.53	20.39	60 270	63.91	1 238 586	49.04
51-52	59 798	971	16.24	19.70	59 312	61.08	1 178 316	50.76
52-53	58 827	1 012	17.21	19.02	58 321	57.63	1 119 004	52.58
53-54	57 815	1 067	18.45	18.35	57 281	53.68	1 060 683	54.50
54-55	56 748	1 126	19.85	17.68	56 185	49.90	1 003 402	56.56
55-56	55 622	1 196	21.50	17.03	55 024	46.01	947 217	58.72
56-57	54 426	1 268	23.30	16.39	53 792	42.42	892 193	61.01
57-58	53 158	1 333	25.08	15.77	52 491	39.38	838 401	63.41
58-59	51 825	1 390	26.81	15.16	51 130	36.78	785 910	65.96
59-60	50 435	1 448	28.71	14.57	49 711	34.33	734 780	68.63
60-61	48 987	1 506	30.75	13.98	48 234	32.03	685 069	71.53
61-62	47 481	1 565	32.95	13.41	46 699	29.84	636 835	74.57
62-63	45 916	1 625	35.41	12.85	45 104	27.76	590 136	77.82
63-64	44 291	1 687	38.09	12.31	43 447	25.75	545 032	81.23
64-65	42 604	1 742	40.88	11.77	41 733	23.96	501 585	84.96
65-66	40 862	1 789	43.79	11.25	39 967	22.34	459 852	88.89
66-67	39 073	1 832	46.87	10.75	38 157	20.83	419 885	93.02
67-68	37 241	1 870	50.23	10.25	36 306	19.41	381 728	97.56
68-69	35 371	1 907	53.92	9.77	34 417	18.05	345 422	102.35
69-70	33 464	1 937	57.88	9.29	32 495	16.78	311 005	107.64
70-71	31 527	1 959	62.14	8.83	30 547	15.59	278 510	113.25
71-72	29 568	1 978	66.90	8.39	28 579	14.45	247 963	119.19
72-73	27 590	1 995	72.30	7.95	26 592	13.34	219 384	125.79
73-74	25 595	2 005	78.33	7.53	24 592	12.27	192 792	132.80
74-75	23 590	2 005	84.99	7.13	22 587	11.27	168 200	140.25
75-76	21 585	1 997	92.53	6.75	20 586	10.31	145 613	148.15
76-77	19 588	1 966	100.34	6.38	18 605	9.46	125 027	156.74
77-78	17 622	1 904	108.04	6.04	16 670	8.76	106 422	165.56
78-79	15 718	1 821	115.88	5.71	14 808	8.13	89 752	175.13
79-80	13 897	1 737	124.98	5.39	13 029	7.50	74 944	185.53
80-81	12 160	1 651	135.75	5.09	11 335	6.87	61 915	196.46
81-82	10 509	1 547	147.28	4.81	9 736	6.29	50 580	207.90
82-83	8 962	1 419	158.33	4.56	8 252	5.82	40 844	219.30
83-84	7 543	1 271	168.54	4.32	6 907	5.43	32 592	231.48
84-85	6 272	1 127	179.56	4.10	5 708	5.07	25 685	243.90
85-86	5 145	983	191.11	3.88	4 654	4.73	19 977	257.73
86-87	4 162	845	203.07	3.68	3 739	4.42	15 323	271.74
87-88	3 317	715	215.45	3.49	2 960	4.14	11 584	286.53
88-89	2 602	594	228.30	3.31	2 305	3.88	8 624	302.11
89-90	2 008	485	241.57	3.15	1 766	3.64	6 319	317.46
90-91	1 523	389	255.17	2.99	1 329	3.42	4 553	334.45
91-92	1 134	305	268.87	2.84	982	3.22	3 224	352.11
92-93	829	234	282.56	2.70	712	3.04	2 242	370.37
93-94	595	176	296.24	2.57	507	2.88	1 530	389.11
94-95	419	130	310.21	2.44	354	2.72	1 023	409.84
95-96	289	94	324.86	2.31	242	2.58	669	432.90
96-97	195	66	340.85	2.19	162	2.43	427	456.62
97-98	129	47	358.73	2.06	105	2.29	265	485.44
98-99	82	31	379.05	1.93	67	2.14	160	518.43
99-100	51	20	401.97	1.80	41	1.99	93	555.56
100-101	31	13	427.46	1.68	24	1.84	52	595.24
101-102	18	8	455.22	1.56	14	1.70	28	641.03
102-103	10	5	485.01	1.45	7	1.56	14	689.66
103-104	5	3	516.40	1.34	4	1.44	7	746.27
104-105	2	1	548.76	1.25	2	1.32	3	800.00
105-106	1	1	582.65	1.15	1	1.22	1	869.57

UNITED STATES LIFE TABLES.

COMMUTATION COLUMNS, 5%. WHITE MALES

BASED ON LIFE TABLE FOR WHITE MALES IN THE ORIGINAL REGISTRATION STATES: 1910.

AGE.	WHITE MALES.					
x	D_x	N_x	S_x	C_x	M_x	R_x
Years.						
0	100 000.00	1 610 857.13	27 542 464.87	11 739.05	23 292.52	299 311.18
1	83 499.05	1 510 857.13	25 931 607.74	2 243.084	11 553.469	276 018.664
2	77 279.82	1 427 358.08	24 420 750.61	936.4000	9 310.3852	264 465.1948
3	72 663.43	1 350 078.26	22 993 392.53	549.5652	8 373.9852	255 154.8096
4	68 653.70	1 277 414.83	21 643 314.27	373.7420	7 824.4200	246 780.8244
5	65 010.73	1 208 761.13	20 365 899.44	291.7702	7 450.6780	238 956.4044
6	61 623.21	1 143 750.40	19 157 138.31	234.5248	7 158.9078	231 505.7264
7	58 454.25	1 082 127.19	18 013 387.91	189.5150	6 924.3830	224 346.8186
8	55 481.20	1 023 672.94	16 931 260.72	154.7061	6 734.8680	217 422.4356
9	52 684.53	968 191.74	15 907 587.78	130.1496	6 580.1619	210 687.5676
10	50 045.59	915 507.21	14 939 396.04	113.4278	6 450.0123	204 107.4057
11	47 549.04	865 461.62	14 023 888.83	103.0149	6 336.5845	197 657.3934
12	45 181.79	817 912.58	13 158 427.21	98.6398	6 233.5696	191 320.8089
13	42 931.63	772 730.79	12 340 514.63	98.4883	6 134.9298	185 087.2393
14	40 788.78	729 799.16	11 567 783.84	101.0136	6 036.4415	178 952.3095
15	38 745.45	689 010.38	10 837 984.68	104.4494	5 935.4279	172 915.8680
16	36 795.98	650 264.93	10 148 974.30	110.3831	5 830.9785	166 980.4401
17	34 933.40	613 468.95	9 498 709.37	117.5923	5 720.5954	161 149.4616
18	33 152.32	578 535.55	8 885 240.42	125.8434	5 603.0031	155 428.8662
19	31 447.79	545 383.23	8 306 704.87	132.2882	5 477.1597	149 825.8631
20	29 817.99	513 935.44	7 761 321.64	138.9107	5 344.8715	144 348.7034
21	28 259.17	484 117.45	7 247 386.20	141.1840	5 205.9608	139 003.8319
22	26 772.31	455 858.28	6 763 268.75	137.3911	5 064.7768	133 797.8711
23	25 360.05	429 085.97	6 307 410.47	130.8487	4 927.3857	128 733.0943
24	24 021.58	403 725.92	5 878 324.50	125.5037	4 796.5370	123 805.7086
25	22 752.19	379 704.34	5 474 598.58	119.8086	4 671.0333	119 009.1716
26	21 548.95	356 952.15	5 094 894.24	115.7105	4 551.2247	114 338.1383
27	20 407.10	335 403.20	4 737 942.09	113.0065	4 435.5142	109 786.9136
28	19 322.32	314 996.10	4 402 538.89	111.7553	4 322.5077	105 351.3994
29	18 290.46	295 673.78	4 087 542.79	110.1357	4 210.7524	101 028.8917
30	17 309.35	277 383.32	3 791 869.01	108.8576	4 100.6167	96 818.1393
31	16 376.23	260 073.97	3 514 485.69	108.0811	3 991.7591	92 717.5226
32	15 488.33	243 697.74	3 254 411.72	107.9312	3 883.6780	88 725.7635
33	14 642.86	228 209.41	3 010 713.98	107.3601	3 775.7468	84 842.0855
34	13 838.22	213 566.55	2 782 504.57	106.7800	3 668.3867	81 066.3387
35	13 072.48	199 728.33	2 568 938.02	106.0116	3 561.6067	77 397.9520
36	12 343.97	186 655.85	2 369 209.69	104.5811	3 455.5951	73 836.3453
37	11 651.58	174 311.88	2 182 553.84	102.4199	3 351.0140	70 380.7502
38	10 994.32	162 660.30	2 008 241.96	99.92914	3 248.59412	67 029.73622
39	10 370.85	151 665.98	1 845 581.66	97.44334	3 148.66498	63 781.14210
40	9 779.561	141 295.127	1 693 915.685	95.23825	3 051.22164	60 632.47712
41	9 218.629	131 515.566	1 552 620.558	93.02221	2 955.98339	57 581.25548
42	8 686.625	122 296.937	1 421 104.992	91.29207	2 862.96118	54 625.27209
43	8 181.684	113 610.312	1 298 808.055	89.86636	2 771.66911	51 762.31091
44	7 702.213	105 428.628	1 185 197.743	88.36943	2 681.80275	48 990.64180
45	7 247.072	97 726.415	1 079 769.115	87.23527	2 593.43332	46 308.83905
46	6 814.739	90 479.343	982 042.700	86.00873	2 506.19805	43 715.40573
47	6 404.218	83 664.604	891 563.357	84.31663	2 420.18932	41 209.20768
48	6 014.939	77 260.386	807 898.753	82.40752	2 335.87269	38 789.01836
49	5 646.105	71 245.447	730 638.367	80.40184	2 253.46517	36 453.14567
50	5 296.842	65 599.342	659 392.920	78.31725	2 173.06333	34 199.68050
51	4 966.294	60 302.500	593 793.578	76.80256	2 094.74608	32 026.61717
52	4 653.001	55 336.206	533 491.078	76.23382	2 017.94352	29 931.87109
53	4 355.196	50 683.205	478 154.872	76.54948	1 941.70970	27 913.92757
54	4 071.256	46 328.009	427 471.667	76.93553	1 865.16022	25 972.21787

COMMUTATION COLUMNS, 5%. WHITE MALES

BASED ON LIFE TABLE FOR WHITE MALES IN THE ORIGINAL REGISTRATION STATES: 1910.

AGE	WHITE MALES.					
x	D_x	N_x	S_x	C_x	M_x	R_x
Years						
55	3 800.451	42 256.753	381 143.658	77.82702	1 788.22469	24 107.05765
56	3 541.650	38 456.302	338 886.905	78.58311	1 710.39767	22 318.83296
57	3 294.417	34 914.652	300 430.603	78.67754	1 631.81456	20 608.43529
58	3 058.862	31 620.235	265 515.951	78.13510	1 553.13702	18 976.62073
59	2 835.067	28 561.373	233 895.716	77.51943	1 475.00192	17 423.48371
60	2 622.545	25 726.306	205 334.343	76.78523	1 397.48249	15 948.48179
61	2 420.876	23 103.761	179 608.037	75.99374	1 320.69726	14 550.99930
62	2 229.603	20 682.885	156 504.276	75.14975	1 244.70352	13 230.30204
63	2 048.282	18 453.282	135 821.391	74.30191	1 169.55377	11 985.59852
64	1 876.442	16 405.000	117 368.109	73.07077	1 095.25186	10 816.04475
65	1 714.017	14 528.558	100 963.109	71.46881	1 022.18109	9 720.79289
66	1 560.928	12 814.541	86 434.551	69.70155	950.71228	8 698.61180
67	1 416.897	11 253.613	73 620.010	67.75936	881.01073	7 747.89952
68	1 281.666	9 836.716	62 366.397	65.80958	813.25137	6 866.88879
69	1 154.825	8 555.050	52 529.681	63.66177	747.44179	6 053.63742
70	1 036.172	7 400.225	43 974.631	61.31887	683.78002	5 306.19563
71	925.5112	6 364.0531	36 574.4056	58.96533	622.46115	4 622.41561
72	822.4739	5 438.5419	30 210.3525	56.64010	563.49582	3 999.95446
73	726.6684	4 616.0680	24 771.8106	54.21336	506.85572	3 436.45864
74	637.8519	3 889.3996	20 155.7426	51.63176	452.64236	2 929.60292
75	555.8461	3 251.5477	16 266.3430	48.97690	401.01060	2 476.96056
76	480.4004	2 695.7016	13 014.7953	45.92059	352.03370	2 075.94996
77	411.6036	2 215.3012	10 319.0937	42.35471	306.11311	1 723.91626
78	349.6488	1 803.6976	8 103.7925	38.57938	263.75840	1 417.80315
79	294.4193	1 454.0488	6 300.0949	35.01741	225.17902	1 154.04475
80	245.3521	1 159.6295	4 846.0461	31.72390	190.13161	928.86573
81	201.9427	914.2774	3 686.4166	28.31182	158.40571	738.73412
82	164.0145	712.3347	2 772.1392	24.73264	130.09389	580.32841
83	131.4717	548.3202	2 059.8045	21.09816	105.36125	450.23452
84	104.1130	416.8485	1 511.4843	17.81696	84.26309	344.87327
85	81.33828	312.73547	1 094.63582	14.80041	66.44613	260.61018
86	62.66461	231.39719	781.90035	12.11679	51.64572	194.16405
87	47.56379	168.73258	550.50316	9.76445	39.52893	142.51833
88	35.53440	121.16879	381.77058	7.72572	29.76448	102.98940
89	26.11657	85.63439	260.60179	6.00765	22.03876	73.22492
90	18.86526	59.51782	174.96740	4.58906	16.03111	51.18616
91	13.37787	40.65256	115.44958	3.42677	11.44205	35.15505
92	9.31406	27.27469	74.79702	2.50387	8.01528	23.71300
93	6.36667	17.96063	47.52233	1.79357	5.51141	15.69772
94	4.26992	11.59396	29.56170	1.26171	3.71784	10.18631
95	2.80488	7.32404	17.96774	.86887	2.45613	6.46847
96	1.80245	4.51916	10.64370	.58101	1.58726	4.01234
97	1.13561	2.71671	6.12454	.39405	1.00625	2.42508
98	.68748	1.58110	3.40783	.24753	.61220	1.41883
99	.40722	.89362	1.82673	.15209	.36467	.80663
100	.23574	.48640	.93311	09415	.21258	.44196
101	.13036	.25066	.44671	.05518	.11843	.22938
102	.06898	.12030	.19605	.03285	.06325	.11095
103	.03285	.05132	.07575	.01877	.03040	.04770
104	.01251	.01847	.02443	.00596	.01163	.01730
105	.00596	.00596	.00596	.00567	.00567	.00567

LIFE TABLE FOR WHITE FEMALES IN THE

BASED ON THE ESTIMATED POPULATION JULY 1, 1910 (11,706,221), AND ON THE

NOTE.—The original registration states include Maine, New Hampshire, Vermont, Massachusetts,

AGE INTERVAL.	OF 100,000 FEMALES BORN ALIVE:		RATE OF MORTALITY PER THOUSAND.	COMPLETE EXPECTATION OF LIFE.	STATIONARY FEMALE POPULATION, Unaffected by Emigration and Immigration, which, Assuming the Mortality Rates in Column 4, would result if 100,000 Females were Born Alive Uniformly Throughout Each Year.			
					POPULATION IN CURRENT AGE INTERVAL.	MEASURE OF VITALITY.	POPULATION IN CURRENT AND ALL OLDER AGE INTERVALS.	DEATH RATE PER THOUSAND
Period of lifetime between two exact ages.	Number alive at beginning of age interval.	Number dying in age interval.	Number dying in age interval among 1,000 alive at beginning of age interval.	Average length of life remaining to each one alive at beginning of age interval.	Including only those in current month or year of age.	Population per death in age interval.	Sum of numbers in column 6 in current and all older age intervals.	Average annual death rate per thousand of population in current and all older age intervals.
x to $x+1$	l_x	d_x	$1000q_x$	$\mathring{e}_x$	L_x	L_x/d_x	T_x	$1000/_2/T_x$
1	2	3	4	5	6	7	8	9
INFANT MORTALITY—FIRST YEAR OF LIFE BY AGE INTERVALS OF ONE MONTH.								
Months.			Monthly rate.	In years		Per month.		Annual rate.
0-1	100 000	3 787	37.87	53.62	8 097	25.68	5 361 770	18.65
1-2	96 213	991	10.29	55.64	7 976	96.60	5 353 673	17.97
2-3	95 222	850	8.93	56.14	7 900	111.18	5 345 697	17.81
3-4	94 372	740	7.84	56.56	7 833	127.08	5 337 797	17.68
4-5	93 632	648	6.92	56.92	7 776	144.00	5 329 964	17.57
5-6	92 984	578	6.21	57.24	7 725	160.44	5 322 188	17.47
6-7	92 406	526	5.70	57.51	7 679	175.20	5 314 463	17.39
7-8	91 880	486	5.28	57.76	7 636	188.52	5 306 784	17.31
8-9	91 394	450	4.93	57.98	7 597	202.56	5 299 148	17.25
9-10	90 944	421	4.62	58.18	7 561	215.52	5 291 551	17.19
10-11	90 523	390	4.31	58.37	7 527	231.60	5 283 990	17.13
11-12	90 133	359	3.98	58.54	7 496	250.56	5 276 463	17.08
LIFE TABLE FOR WHOLE RANGE OF LIFE BY AGE INTERVALS OF ONE YEAR.								
Years.			Annual rate.	In years		Per year		Annual rate.
0-1	100 000	10 226	102.26	53.62	92 803	9.08	5 361 770	18.65
1-2	89 774	2 319	25.83	58.69	88 406	38.12	5 268 967	17.01
2-3	87 455	999	11.43	59.24	86 925	87.01	5 180 561	16.88
3-4	86 456	644	7.45	58.92	86 121	133.71	5 093 636	16.97
4-5	85 812	463	5.39	58.35	85 574	184.82	5 007 515	17.14
5-6	85 349	382	4.47	57.67	85 158	222.93	4 921 944	17.34
6-7	84 967	316	3.72	56.93	84 809	268.38	4 836 786	17.57
7-8	84 651	262	3.09	56.11	84 520	322.60	4 751 977	17.81
8-9	84 389	220	2.61	55.31	84 279	383.09	4 667 457	18.08
9-10	84 169	190	2.26	54.45	84 074	442.48	4 583 178	18.37
10-11	83 979	173	2.06	53.57	83 892	484.92	4 499 104	18.67
11-12	83 806	166	1.98	52.68	83 725	504.36	4 415 212	18.98
12-13	83 640	169	2.02	51.79	83 555	494.41	4 331 489	19.31
13-14	83 471	181	2.16	50.89	83 380	460.66	4 247 934	19.65
14-15	83 290	197	2.37	50.00	83 192	422.29	4 164 554	20.00
15-16	83 093	220	2.65	49.12	82 983	377.20	4 081 362	20.36
16-17	82 873	241	2.95	48.25	82 751	339.14	3 998 379	20.73
17-18	82 629	269	3.25	47.39	82 495	306.67	3 915 628	21.10
18-19	82 360	292	3.55	46.54	82 214	281.55	3 833 133	21.49
19-20	82 068	318	3.87	45.71	81 909	257.58	3 750 919	21.88
20-21	81 750	343	4.20	44.88	81 578	237.84	3 669 010	22.28
21-22	81 407	365	4.48	44.07	81 224	222.53	3 587 432	22.69
22-23	81 042	381	4.70	43.26	80 851	212.21	3 506 208	23.12
23-24	80 661	392	4.86	42.47	80 465	205.27	3 425 357	23.55
24-25	80 269	404	5.04	41.67	80 067	198.19	3 344 892	24.00
25-26	79 865	417	5.22	40.88	79 656	191.02	3 264 825	24.46
26-27	79 448	428	5.39	40.09	79 234	185.13	3 185 169	24.94
27-28	79 020	438	5.54	39.31	78 801	179.91	3 105 935	25.44
28-29	78 582	448	5.70	38.52	78 358	174.91	3 027 134	25.96
29-30	78 134	458	5.86	37.74	77 905	170.10	2 948 776	26.50
30-31	77 676	469	6.03	36.96	77 441	165.12	2 870 871	27.06
31-32	77 207	480	6.23	36.18	76 967	160.35	2 793 430	27.64
32-33	76 727	495	6.45	35.40	76 479	154.50	2 716 463	28.25
33-34	76 232	509	6.68	34.63	75 977	149.27	2 639 984	28.88
34-35	75 723	523	6.90	33.86	75 462	144.29	2 564 007	29.53
35-36	75 200	536	7.13	33.09	74 932	139.80	2 488 545	30.22
36-37	74 664	547	7.33	32.33	74 390	136.00	2 413 613	30.93
37-38	74 117	556	7.50	31.56	73 839	132.80	2 339 223	31.69
38-39	73 561	564	7.66	30.80	73 279	129.93	2 265 384	32.47
39-40	72 997	572	7.84	30.03	72 711	127.12	2 192 105	33.30
40-41	72 425	582	8.03	29.26	72 134	123.94	2 119 394	34.18
41-42	71 843	594	8.28	28.50	71 546	120.45	2 047 260	35.09
42-43	71 249	613	8.60	27.73	70 942	115.74	1 975 714	36.06
43-44	70 636	635	8.99	26.97	70 318	110.74	1 904 772	37.08
44-45	70 001	660	9.42	26.21	69 671	105.56	1 834 454	38.15

ORIGINAL REGISTRATION STATES: 1910.

REPORTED DEATHS IN 1909 (160,227), IN 1910 (170,233), AND IN 1911 (165,918).

Rhode Island, Connecticut, New York, New Jersey, Indiana, Michigan, and the District of Columbia.

AGE INTERVAL.	OF 100,000 FEMALES BORN ALIVE:		RATE OF MORTALITY PER THOUSAND.	COMPLETE EXPECTATION OF LIFE.	STATIONARY FEMALE POPULATION, Unaffected by Emigration and Immigration, which, Assuming the Mortality Rates in Column 4, would result if 100,000 Females were Born Alive Uniformly Throughout Each Year.			
					POPULATION IN CURRENT AGE INTERVAL.	MEASURE OF VITALITY.	POPULATION IN CURRENT AND ALL OLDER AGE INTERVALS.	DEATH RATE PER THOUSAND.
Period of lifetime between two exact ages.	Number alive at beginning of age interval.	Number dying in age interval.	Number dying in age interval among 1,000 alive at beginning of age interval	Average length of life remaining to each one alive at beginning of age interval.	Including only those in current month or year of age.	Population per death in age interval.	Sum of numbers in column 6 in current and all older age intervals.	Average annual death rate per thousand of population in current and all older age intervals.
x to $x+1$	l_x	d_x	$1000q_x$	$\mathring{e}_x$	L_x	L_x/d_x	T_x	$1000l_x/T_x$
1	2	3	4	5	6	7	8	9
LIFE TABLE FOR WHOLE RANGE OF LIFE BY AGE INTERVALS OF ONE YEAR—Continued.								
Years.			Annual rate.	In years.		Per year.		Annual rate.
45-46	69 341	687	9.91	25.45	68 998	100.43	1 764 783	39.29
46-47	68 654	716	10.43	24.70	68 296	95.39	1 695 785	40.49
47-48	67 938	743	10.94	23.96	67 567	90.94	1 627 489	41.74
48-49	67 195	769	11.45	23.21	66 811	86.88	1 559 922	43.08
49-50	66 426	797	12.01	22.48	66 027	82.84	1 493 111	44.48
50-51	65 629	827	12.59	21.74	65 216	78.86	1 427 084	46.00
51-52	64 802	860	13.28	21.02	64 372	74.85	1 361 868	47.57
52-53	63 942	905	14.15	20.29	63 490	70.15	1 297 496	49.29
53-54	63 037	961	15.24	19.58	62 537	65.10	1 234 006	51.07
54-55	62 076	1 023	16.48	18.87	61 565	60.18	1 171 449	52.99
55-56	61 053	1 094	17.93	18.18	60 506	55.31	1 109 884	55.01
56-57	59 959	1 169	19.50	17.50	59 374	50.79	1 049 378	57.14
57-58	58 790	1 236	21.03	16.84	58 172	47.06	990 004	59.38
58-59	57 554	1 296	22.51	16.19	56 906	43.91	931 832	61.77
59-60	56 258	1 358	24.13	15.55	55 579	40.93	874 926	64.31
60-61	54 900	1 418	25.83	14.92	54 191	38.22	819 347	67.02
61-62	53 482	1 483	27.74	14.31	52 740	35.56	765 156	69.88
62-63	51 999	1 539	29.97	13.70	51 219	32.85	712 416	72.99
63-64	50 440	1 640	32.51	13.11	49 629	30.26	661 197	76.28
64-65	48 800	1 714	35.13	12.53	47 943	27.97	611 577	79.81
65-66	47 086	1 783	37.86	11.97	46 194	25.91	563 634	83.54
66-67	45 303	1 850	40.84	11.42	44 378	23.99	517 440	87.57
67-68	43 453	1 920	44.19	10.89	42 493	22.13	473 062	91.83
68-69	41 533	1 992	47.96	10.37	40 537	20.35	430 569	96.43
69-70	39 541	2 059	52.07	9.86	38 511	18.70	390 032	101.42
70-71	37 482	2 123	56.63	9.38	36 420	17.15	351 521	106.61
71-72	35 359	2 173	61.45	8.91	34 273	15.77	315 101	112.23
72-73	33 186	2 201	66.33	8.46	32 086	14.58	280 828	118.20
73-74	30 985	2 209	71.29	8.03	29 884	13.53	248 742	124.53
74-75	28 776	2 207	76.70	7.61	27 673	12.54	218 861	131.41
75-76	26 569	2 192	82.52	7.20	25 473	11.62	191 188	138.89
76-77	24 377	2 167	88.88	6.80	23 293	10.75	165 715	147.06
77-78	22 210	2 134	96.09	6.41	21 143	9.91	142 422	156.01
78-79	20 076	2 096	104.42	6.04	19 028	9.08	121 279	165.56
79-80	17 980	2 051	111.06	5.69	16 954	8.27	102 251	175.75
80-81	15 929	2 004	125.79	5.35	14 927	7.45	85 297	186.92
81-82	13 925	1 924	138.19	5.05	12 963	6.74	70 370	198.02
82-83	12 001	1 789	149.10	4.78	11 106	6.21	57 407	209.21
83-84	10 212	1 615	158.11	4.53	9 404	5.82	46 301	220.75
84-85	8 597	1 445	168.04	4.29	7 875	5.45	36 897	233.10
85-86	7 152	1 275	178.32	4.06	6 515	5.11	29 022	246.31
86-87	5 877	1 115	189.67	3.83	5 320	4.77	22 507	261.10
87-88	4 762	962	202.11	3.61	4 281	4.45	17 187	277.01
88-89	3 800	820	215.85	3.40	3 390	4.13	12 906	294.12
89-90	2 980	689	231.05	3.19	2 635	3.83	9 516	313.48
90-91	2 291	567	247.59	3.00	2 008	3.54	6 881	333.33
91-92	1 724	457	265.04	2.83	1 495	3.27	4 873	353.36
92-93	1 267	358	282.82	2.67	1 088	3.04	3 378	374.53
93-94	909	273	300.44	2.52	772	2.83	2 290	396.83
94-95	636	202	317.60	2.39	535	2.65	1 518	418.41
95-96	434	145	334.23	2.27	361	2.49	983	440.53
96-97	289	101	350.48	2.15	238	2.35	622	465.12
97-98	188	69	366.82	2.05	153	2.23	384	487.80
98-99	119	46	383.80	1.94	96	2.11	231	515.46
99-100	73	29	401.79	1.84	58	1.99	135	543.48
100-101	44	19	420.99	1.74	35	1.88	77	574.71
101-102	25	11	441.52	1.65	20	1.76	42	606.06
102-103	14	6	463.45	1.55	11	1.66	22	645.16
103-104	8	4	486.68	1.46	6	1.55	11	684.93
104-105	4	2	511.19	1.37	3	1.46	5	729.93
105-106	2	1	537.06	1.29	1	1.36	2	775.19
106-107	1	1	565.19	1.21	1	1.27	1	826.45

UNITED STATES LIFE TABLES.

COMMUTATION COLUMNS, 5%. WHITE FEMALES

BASED ON LIFE TABLE FOR WHITE FEMALES IN THE ORIGINAL REGISTRATION STATES: 1910.

AGE.	WHITE FEMALES.					
x	D_x	N_x	S_x	C_x	M_x	R_x
Years.						
0	100 000.00	1 667 172.65	28 978 991.97	9 739.048	20 610.82.	287 220.646
1	85 499.05	1 567 172.65	27 311 819.32	2 103.401	10 871.777	266 609.821
2	79 324.26	1 481 673.60	25 744 646.67	862.9738	8 768.3761	255 738.0439
3	74 683.94	1 402 349.34	24 262 973.07	529.8204	7 905.4023	246 969.6678
4	70 597.74	1 327 665.40	22 860 623.73	362.7726	7 375.5819	239 064.2655
5	66 873.18	1 257 067.66	21 532 958.33	285.0543	7 012.8093	231 688.6836
6	63 403.68	1 190 194.48	20 275 890.67	224.5753	6 727.7550	224 675.8743
7	60 159.89	1 126 790.80	19 085 696.19	177.3319	6 503.1797	217 948.1193
8	57 117.80	1 066 630.91	17 958 905.39	141.8140	6 325.8478	211 444.9396
9	54 256.09	1 009 513.11	16 892 274.48	116.6435	6 184.0338	205 119.0918
10	51 555.82	955 257.02	15 882 761.37	101.1495	6 067.3903	198 935.0580
11	48 999.63	903 701.20	14 927 504.35	92.4350	5 966.2408	192 867.6677
12	46 573.88	854 701.57	14 023 803.15	89.6243	5 873.8058	186 901.4269
13	44 266.45	808 127.69	13 169 101.58	91.4173	5 784.1815	181 027.6211
14	42 067.11	763 861.24	12 360 973.89	94.7604	5 692.7642	175 243.4396
15	39 969.15	721 794.13	11 597 112.65	100.7845	5 598.0038	169 550.6754
16	37 965.08	681 824.98	10 875 318.52	106.4564	5 497.2193	163 952.6716
17	36 050.76	643 859.90	10 193 493.54	111.7751	5 390.7629	158 455.4523
18	34 222.28	607 809.14	9 549 633.64	115.5543	5 278.9878	153 064.6894
19	32 477.09	573 586.86	8 941 824.50	119.8509	5 163.4335	147 785.7016
20	30 810.71	541 109.77	8 368 237.64	123.1172	5 043.5826	142 622.2681
21	29 220.42	510 299.06	7 827 127.87	124.7752	4 920.4654	137 578.6855
22	27 704.20	481 078.64	7 316 828.81	124.0427	4 795.6902	132 658.2201
23	26 260.91	453 374.44	6 835 750.17	121.5466	4 671.6475	127 862.5299
24	24 888.84	427 113.53	6 382 375.73	119.3023	4 550.1009	123 190.8824
25	23 584.36	402 224.69	5 955 262.20	117.2774	4 430.7986	118 640.7815
26	22 344.01	378 640.33	5 553 037.51	114.6391	4 313.5212	114 209.9829
27	21 165.37	356 296.32	5 174 397.18	111.7310	4 198.8821	109 896.4617
28	20 045.77	335 130.95	4 818 100.86	108.8400	4 087.1511	105 697.5796
29	18 982.37	315 085.18	4 482 969.91	105.9709	3 978.3111	101 610.4285
30	17 972.47	296 102.81	4 167 884.73	103.3486	3 872.3402	97 632.1174
31	17 013.29	278 130.34	3 871 781.92	100.7358	3 768.9916	93 759.7772
32	16 102.40	261 117.05	3 593 651.58	98.93691	3 668.25584	89 990.78555
33	15 236.68	245 014.65	3 332 534.53	96.89059	3 569.31893	86 322.52971
34	14 414.24	229 777.97	3 087 519.88	94.81482	3 472.42834	82 753.21078
35	13 633.03	215 363.73	2 857 741.91	92.54437	3 377.61352	79 280.78244
36	12 891.29	201 730.70	2 642 378.18	89.94629	3 285.06915	75 903.16892
37	12 187.48	188 839.41	2 440 647.48	87.07258	3 195.12286	72 618.09977
38	11 520.05	176 651.93	2 251 808.07	84.11946	3 108.05028	69 422.97691
39	10 887.35	165 131.88	2 075 156.14	81.25013	3 023.93082	66 314.92663
40	10 287.66	154 244.53	1 910 024.26	78.73389	2 942.68069	63 290.99581
41	9 719.036	143 956.874	1 755 779.733	76.53073	2 863.94680	60 348.31512
42	9 179.694	134 237.838	1 611 822.859	75.21780	2 787.41607	57 484.36832
43	8 667.348	125 058.144	1 477 585.021	74.20694	2 712.19827	54 696.95225
44	8 180.410	116 390.796	1 352 526.877	73.45570	2 637.99133	51 984.75398
45	7 717.411	108 210.386	1 236 136.081	72.81972	2 564.53563	49 346.76265
46	7 277.096	100 492.975	1 127 925.695	72.27963	2 491.71591	46 782.22702
47	6 858.287	93 215.879	1 027 432.720	71.43359	2 419.43628	44 290.51111
48	6 460.269	86 357.592	934 216.841	70.41265	2 348.00269	41 871.07483
49	6 082.224	79 897.323	847 859.249	69.50137	2 277.59004	39 523.07214
50	5 723.094	73 815.099	767 961.926	68.68332	2 208.08867	37 245.48210
51	5 381.882	68 092.005	694 146.827	68.02286	2 139.40535	35 037.39343
52	5 057.579	62 710.123	626 054.822	68.17352	2 071.38249	32 897.98808
53	4 748.568	57 652.544	563 344.699	68.94475	2 003.20897	30 826.60559
54	4 453.501	52 903.976	505 692.155	69.89791	1 934.26422	28 823.39662

COMMUTATION COLUMNS, 5%. WHITE FEMALES

BASED ON LIFE TABLE FOR WHITE FEMALES IN THE ORIGINAL REGISTRATION STATES: 1910.

AGE.	WHITE FEMALES.					
x	D_x	N_x	S_x	C_x	M_x	R_x
Years.						
55	4 171.532	48 450.475	452 788.179	71.18960	1 864.36631	26 889.13240
56	3 901.698	44 278.943	404 337.704	72.44768	1 793.17671	25 024.76609
57	3 643.455	40 377.245	360 058.761	72.95232	1 720.72903	23 231.58938
58	3 397.005	36 733.790	319 681.516	72.85114	1 647.77671	21 510.86035
59	3 162.392	33 336.785	282 947.726	72.70124	1 574.92557	19 863.08364
60	2 939.100	30 174.393	249 610.941	72.29845	1 502.22433	18 288.15807
61	2 726.844	27 235.293	219 436.548	72.01196	1 429.92588	16 785.93374
62	2 524.983	24 508.449	192 201.255	72.09751	1 357.91392	15 356.00786
63	2 332.648	21 983.466	167 692.806	72.23185	1 285.81641	13 998.09394
64	2 149.338	19 650.818	145 709.340	71.89627	1 213.58456	12 712.27753
65	1 975.092	17 501.480	126 058.522	71.22912	1 141.68829	11 498.69297
66	1 809.811	15 526.388	108 557.042	70.38640	1 070.45917	10 357.00468
67	1 653.243	13 716.577	93 030.654	69.57110	1 000.07277	9 286.54551
68	1 504.946	12 063.334	79 314.077	68.74288	930.50167	8 286.47274
69	1 364.539	10 558.388	67 250.743	67.67144	861.75879	7 355.97107
70	1 231.890	9 193.849	56 692.355	66.45226	794.08735	6 494.21228
71	1 106.776	7 961.959	47 498.506	64.77839	727.63509	5 700.12493
72	989.2939	6 855.1831	39 536.5470	62.48866	662.85670	4 972.48984
73	879.6961	5 865.8892	32 681.3639	59.72933	600.36804	4 309.63314
74	778.0766	4 986.1931	26 815.4747	56.83356	540.63871	3 709.26510
75	684.1916	4 208.1165	21 829.2816	53.75933	483.80515	3 168.62639
76	597.8518	3 523.9249	17 621.1651	50.61542	430.04582	2 684.82124
77	518.7672	2 926.0731	14 097.2402	47.47109	379.43040	2 254.77542
78	446.5930	2 407.3059	11 171.1671	44.40548	331.95931	1 875.34502
79	380.9210	1 960.7129	8 763.8612	41.38299	287.55383	1 543.38571
80	321.3991	1 579.7919	6 803.1483	38.50920	246.17084	1 255.83188
81	267.5852	1 258.3928	5 223.3564	35.21134	207.66164	1 009.66104
82	219.6316	990.8076	3 964.9636	31.18161	172.45030	801.99940
83	177.9914	771.1760	2 974.1560	26.80843	141.26869	629.54910
84	142.7072	593.1846	2 202.9800	22.84428	114.46026	488.28041
85	113.0673	450.4774	1 609.7954	19.19687	91.61598	373.82015
86	88.48629	337.41010	1 159.31796	15.98843	72.41911	282.20417
87	68.28422	248.92381	821.90786	13.13762	56.43068	209.78506
88	51.89497	180.63959	572.98405	10.66513	43.29306	153.35438
89	38.75865	128.74462	392.34446	8.53458	32.62793	110.06132
90	28.37841	89.98597	263.59984	6.68893	24.09335	77.43339
91	20.33813	61.60756	173.61387	5.13453	17.40442	53.34004
92	14.23513	41.26943	112.00631	3.83070	12.26989	35.93562
93	9.72655	27.03430	70.73688	2.78207	8.43919	23.66573
94	6.48131	17.30775	43.70258	1.96050	5.65712	15.22654
95	4.21217	10.82644	26.39483	1.34028	3.69662	9.56942
96	2.67132	6.61427	15.56839	.88912	2.35634	5.87280
97	1.65499	3.94295	8.95412	.57849	1.46722	3.51646
98	.99769	2.28796	5.01117	.36730	.88873	2.04924
99	.58288	1.29027	2.72321	.22053	.52143	1.16051
100	.33460	.70739	1.43294	.13761	.30090	.63908
101	.18106	.37279	.72555	.07587	.16329	.33818
102	.09657	.19173	.35276	.03941	.08742	.17489
103	.05255	.09516	.16103	.02502	.04801	.08747
104	.02502	.04261	.06587	.01192	.02299	.03946
105	.01192	.01759	.02326	.00567	.01107	.01647
106	.00567	.00567	.00567	.00540	.00540	.00540

Hunter's Disability Table

Combined Table of Mortality and Disability on Assumption that None Become Disabled After Attaining Age 60

Age	Rate of Mortality American Experience Table	Probability of becoming Disabled	Ultimate Rate of Mortality among Disabled	Probability of Dying in Active State	Of 96285 Actives at age 15 there will be living at Age x		Number becoming Disabled during Year
					Active	Disabled	
x	q_x	p_x^{ai}	q_x^{i}	q_x^{a}	l_x^{aa}	l_x^{ii}	$p_x^{ai} l_x^{aa}$
15	.007 634	.000 509	.267	.007 634	96 285	0	49
16	.007 661	.000 510	.254	.007 539	95 501	49	49
17	.007 688	.000 511	.241	.007 474	94 732	86	48
18	.007 727	.000 512	.229	.007 459	93 976	113	48
19	.007 765	.000 513	.217	.007 466	93 227	135	48
20	.007 805	.000 515	.205	.007 472	92 483	154	48
21	.007 855	.000 517	.193	.007 510	91 744	170	47
22	.007 906	.000 519	.182	.007 560	91 008	184	47
23	.007 958	.000 521	.171	.007 599	90 273	198	47
24	.008 011	.000 524	.161	.007 650	89 540	211	47
25	.008 065	.000 528	.151	.007 702	88 808	224	47
26	.008 130	.000 533	.141	.007 777	88 077	237	47
27	.008 197	.000 539	.132	.007 842	87 345	251	47
28	.008 264	.000 546	.123	.007 909	86 613	265	47
29	.008 345	.000 553	.114	.007 999	85 881	279	47
30	.008 427	.000 561	.106	.008 092	85 147	294	48
31	.008 510	.000 571	.100	.008 174	84 410	311	48
32	.008 607	.000 584	.095	.008 270	83 672	328	49
33	.008 718	.000 600	.092	.008 368	82 931	346	50
34	.008 831	.000 619	.090	.008 468	82 187	364	51
35	.008 946	.000 642	.089	.008 571	81 440	382	52
36	.009 089	.000 670	.088	.008 700	80 690	400	54
37	.009 234	.000 703	.088	.008 820	79 934	419	56
38	.009 408	.000 741	.087	.008 980	79 173	438	59
39	.009 586	.000 784	.086	.009 145	78 403	459	61
40	.009 794	.000 832	.085	.009 327	77 625	481	65
41	.010 008	.000 885	.085	.009 514	76 836	505	68
42	.010 252	.000 943	.085	.009 732	76 037	530	72
43	.010 517	.001 006	.086	.009 957	75 225	557	76
44	.010 829	.001 075	.086	.010 242	74 400	585	80
45	.011 163	.001 151	.087	.010 522	73 558	615	85
46	.011 562	.001 236	.088	.010 880	72 699	646	90
47	.012 000	.001 331	.088	.011 279	71 818	679	96
48	.012 509	.001 438	.089	.011 733	70 912	715	102
49	.013 106	.001 559	.090	.012 275	69 978	753	109
50	.013 781	.001 696	.091	.012 897	69 010	794	117
51	.014 541	.001 851	.092	.013 588	68 003	839	126
52	.015 389	.002 027	.094	.014 353	66 953	888	136
53	.016 333	.002 230	.096	.015 200	65 856	941	147
54	.017 396	.002 468	.099	.016 134	64 708	998	160
55	.018 571	.002 752	.101	.017 196	63 504	1 059	175
56	.019 885	.003 095	.103	.018 381	62 237	1 127	193
57	.021 335	.003 512	.105	.019 688	60 900	1 204	214
58	.022 936	.004 021	.107	.021 114	59 487	1 292	239
59	.024 720	.004 643	.109	.022 693	57 992	1 393	269

Hunter's Disability Table

Combined Table of Mortality and Disability on Assumption that None Become Disabled After Attaining Age 60

Age	Rate of Mortality American Experience Table	Probability of becoming Disabled	Ultimate Rate of Mortality among Disabled	Probability of Dying in Active State	Of 96285 Actives at age 15 there will be living at Age x		Number becoming Disabled during Year
					Active	Disabled	
x	q_x	p_x^{ai}	q_x^i	q_x^a	l_x^{aa}	l_x^{ii}	$p_x^{ai} l_x^{aa}$
60	.026 693	.....	.111	.024 430	56 407	1 510	0
61	.028 880	.....	.113	.026 822	55 029	1 342	0
62	.031 292	.....	.114	.029 447	53 553	1 190	0
63	.033 943	.....	.114	.032 323	51 976	1 054	0
64	.036 873	.....	.115	.035 430	50 296	934	0
65	.040 129	.....	.115	.038 855	48 514	827	0
66	.043 707	.....	.115	.042 592	46 629	732	0
67	.047 647	.....	.115	.046 659	44 643	648	0
68	.052 002	.....	.115	.051 151	42 560	573	0
69	.056 762	.....	.115	.056 038	40 383	507	0
70	.061 993	.....	.115	.061 359	38 120	449	0
71	.067 665	.....	.116	.067 131	35 781	397	0
72	.073 733	.....	.116	.073 280	33 379	351	0
73	.080 178	.....	.116	.079 818	30 933	310	0
74	.087 028	.....	.117	.086 741	28 464	274	0
75	.094 371	.....	.118	.094 133	25 995	242	0
76	.102 311	.....	.119	.102 174	23 548	213	0
77	.111 064	.....	.121	.110 964	21 142	188	0
78	.120 827	.....	.126	.120 770	18 796	165	0
79	.131 734	.....	.133	.131 732	16 526	144	0
80	American Experience Table Mortality				14 349	125	0

On Assumption That None Become Disabled After Attaining Age 65.

Figures for ages 15 to 59 inclusive are the same as in preceding Table

x	q_x	p_x^{ai}	q_x^i	q_x^a	l_x^{aa}	l_x^{ii}	$p_x^{ai} l_x^{aa}$
60	.026 693	.005 402	.111	.024 430	56 407	1 510	305
61	.028 880	.006 326	.113	.026 350	54 724	1 647	346
62	.031 292	.007 447	.114	.028 468	52 936	1 807	394
63	.033 943	.008 802	.114	.030 822	51 035	1 995	449
64	.036 873	.010 433	.115	.033 338	49 013	2 217	511
65	.040 129	.....	.115	.036 187	46 868	2 473	0
66	.043 707	.....	.115	.040 246	45 172	2 189	0
67	.047 647	.....	.115	.044 633	43 354	1 937	0
68	.052 002	.....	.115	.049 398	41 419	1 714	0
69	.056 762	.....	.115	.054 530	39 373	1 517	0
70	.061 993	.....	.115	.060 092	37 226	1 343	0
71	.067 665	.....	.116	.066 021	34 989	1 189	0
72	.073 733	.....	.116	.072 371	32 679	1 051	0
73	.080 178	.....	.116	.079 072	30 314	929	0
74	.087 028	.....	.117	.086 148	27 917	821	0
75	.094 371	.....	.118	.093 681	25 512	725	0
76	.102 311	.....	.119	.101 851	23 122	639	0
77	.111 064	.....	.121	.110 801	20 767	563	0
78	.120 827	.....	.126	.120 708	18 466	495	0
79	.131 734	.....	.133	.131 675	16 237	433	0
80	American Experience Table Mortality				14 099	375	0

Commutation Columns for Disability Occurring Before Attaining Age 60

3%

Hunter's Disability Table

x	D_x^{aa}	N_x^{aa}	D_x^{ii}	N_x^{ii}	D_x^{i}	N_x^{i}
15	61 801.68	1 457 338.09			1 000 000.	4 077 503.
16	59 513.07	1 395 536.41	30.5352	8 093.6646	711 650.5	3 077 502.7
17	57 314.42	1 336 023.34	52.0314	8 063.1294	515 428.4	2 365 852.2
18	55 201.00	1 278 708.92	66.3756	8 011.0980	379 815.7	1 850 423.8
19	53 166.06	1 223 507.92	76.9886	7 944.7224	284 308.6	1 470 608.1
20	51 205.59	1 170 341.86	85.2661	7 867.7338	216 129.8	1 186 299.5
21	49 316.92	1 119 136.27	91.3834	7 782.4677	166 818.6	970 169.7
22	47 496.39	1 069 819.35	96.0282	7 691.0843	130 701.6	803 351.1
23	45 740.58	1 022 322.96	100.3250	7 595.0561	103 799.9	672 649.5
24	44 047.75	976 582.38	103.7980	7 494.7311	83 543.80	568 849.63
25	42 415.20	932 534.63	106.9836	7 390.9331	68 051.70	485 305.83
26	40 840.84	890 119.43	109.8957	7 283.9495	56 093.10	417 254.13
27	39 321.76	849 278.59	112.9975	7 174.0538	46 780.56	361 161.03
28	37 856.53	809 956.83	115.8253	7 061.0563	39 422.84	314 380.47
29	36 443.29	772 100.30	118.3926	6 945.2310	33 566.82	274 957.63
30	35 079.44	735 657.01	121.1241	6 826.8384	28 873.99	241 390.81
31	33 762.92	700 577.57	124.3960	6 705.7143	25 061.50	212 516.82
32	32 492.94	666 814.65	127.3745	6 581.3183	21 898.40	187 455.32
33	31 267.16	634 321.71	130.4511	6 453.9438	19 240.83	165 556.92
34	30 084.13	603 054.55	133.2403	6 323.4927	16 961.81	146 316.09
35	28 942.42	572 970.42	135.7565	6 190.2524	14 985.68	129 354.28
36	27 840.67	544 028.00	138.0130	6 054.4959	13 254.33	114 368.60
37	26 776.53	516 187.33	140.3579	5 916.4829	11 735.87	101 114.27
38	25 749.13	489 410.80	142.4491	5 776.1250	10 391.37	89 378.40
39	24 756.03	463 661.67	144.9309	5 633.6759	9 210.992	78 987.032
40	23 796.47	438 905.64	147.4538	5 488.7450	8 173.638	69 776.040
41	22 868.55	415 109.17	150.3021	5 341.2912	7 261.047	61 602.402
42	21 971.59	392 240.62	153.1484	5 190.9891	6 450.348	54 341.355
43	21 103.84	370 269.03	156.2624	5 037.8407	5 730.163	47 891.007
44	20 264.46	349 165.19	159.3375	4 881.5783	5 084.824	42 160.844
45	19 451.58	328 900.73	162.6298	4 722.2408	4 512.165	37 076.020
46	18 664.49	309 449.15	165.8518	4 559.6110	3 999.618	32 563.855
47	17 901.27	290 784.66	169.2467	4 393.7592	3 541.409	28 564.237
48	17 160.62	272 883.39	173.0291	4 224.5125	3 135.694	25 022.828
49	16 441.35	255 722.77	176.9176	4 051.4834	2 773.415	21 887.134
50	15 741.67	239 281.42	181.1170	3 874.5658	2 450.299	19 113.719
51	15 060.16	223 539.75	185.8076	3 693.4488	2 162.448	16 663.420
52	14 395.75	208 479.59	190.9314	3 507.6412	1 906.314	14 500.972
53	13 747.46	194 083.84	196.4340	3 316.7098	1 676.816	12 594.658
54	13 114.38	180 336.38	202.2648	3 120.2758	1 471.691	10 917.842
55	12 495.50	167 222.00	208.3764	2 918.0110	1 287.372	9 446.151
56	11 889.51	154 726.50	215.2977	2 709.6346	1 123.638	8 158.779
57	11 295.24	142 836.99	223.3082	2 494.3369	978.5473	7 035.1413
58	10 711.81	131 541.75	232.6502	2 271.0287	850.2911	6 056.5940
59	10 138.46	120 829.94	243.5313	2 038.3785	737.1941	5 206.3029
60	9 574.134	110 691.482	256.2970	1 794.8472	637.7087	4 469.1088
61	9 068.196	101 117.348	221.1474	1 538.5502	550.4107	3 831.4001
62	8 567.929	92 049.152	190.3878	1 317.4028	473.9945	3 280.9894
63	8 073.423	83 481.223	163.7176	1 127.0150	407.7273	2 806.9949
64	7 584.921	75 407.800	140.8525	963.2974	350.7246	2 399.2676

Commutation Columns for Disability Occurring Before Attaining Age 60

Hunter's Disability Table 3%

x	D_x^{aa}	N_x^{aa}	D_x^{ii}	N_x^{ii}	D_x^{i}	N_x^{i}
65	7 103.092	67 822.879	121.0838	822.4449	301.3508	2 048.5430
66	6 628.256	60 719.787	104.0529	701.3611	258.9276	1 747.1922
67	6 161.115	54 091.531	89.42953	597.30822	222.4766	1 488.2646
68	5 702.566	47 930.416	76.77562	507.87869	191.1571	1 265.7880
69	5 253.274	42 227.850	65.95374	431.10307	164.2466	1 074.6309
70	4 814.455	36 974.576	56.70751	365.14933	141.1245	910.3843
71	4 387.423	32 160.121	48.67966	308.44182	121.2575	769.2598
72	3 973.682	27 772.698	41.78563	259.76216	104.0695	648.0023
73	3 575.236	23 799.016	35.82979	217.97653	89.31794	543.93275
74	3 194.047	20 223.780	30.74652	182.14674	76.65734	454.61481
75	2 832.031	17 029.733	26.36474	151.40022	65.71692	377.95747
76	2 490.720	14 197.702	22.52945	125.03548	56.27410	312.24055
77	2 171.100	11 706.982	19.30597	102.50603	48.13348	255.96645
78	1 873.967	9 535.882	16.45055	83.20006	41.07702	207.83297
79	1 599.657	7 661.915	13.93868	66.74951	34.85564	166.75595
80	1 348.477	6 062.258	11.74714	52.81083	29.33965	131.90031

Commutation Columns for Disability Occurring Before Attaining Age 65

Hunter's Disability Table 3%

x	D_x^{aa}	N_x^{aa}	D_x^{ii}	N_x^{ii}	D_x^{i}	N_x^{i}
15	61 801.68	1 455 210.24			1 000 000.	4 077 503.
16	59 513.07	1 393 408.56	30.5352	10 221.5240	711 650.5	3 077 502.7
17	57 314.42	1 333 895.49	52.0314	10 190.9888	515 428.4	2 365 852.2
18	55 201.00	1 276 581.07	66.3756	10 138.9574	379 815.7	1 850 423.8
19	53 166.06	1 221 380.07	76.9886	10 072.5818	284 308.6	1 470 608.1
20	51 205.59	1 168 214.01	85.2661	9 995.5932	216 129.8	1 186 299.5
21	49 316.92	1 117 008.42	91.3834	9 910.3271	166 818.6	970 169.7
22	47 496.39	1 067 691.50	96.0282	9 818.9437	130 701.6	803 351.1
23	45 740.58	1 020 195.11	100.3250	9 722.9155	103 799.9	672 649.5
24	44 047.75	974 454.53	103.7980	9 622.5905	83 543.80	568 849.63
25	42 415.20	930 406.78	106.9836	9 518.7925	68 051.70	485 305.83
26	40 840.84	887 991.58	109.8957	9 411.8089	56 093.10	417 254.13
27	39 321.76	847 150.74	112.9975	9 301.9132	46 780.56	361 161.03
28	37 856.53	807 828.98	115.8253	9 188.9157	39 422.84	314 380.47
29	36 443.29	769 972.45	118.3926	9 073.0904	33 566.82	274 957.63
30	35 079.44	733 529.16	121.1241	8 954.6978	28 873.99	241 390.81
31	33 762.92	698 449.72	124.3960	8 833.5737	25 061.50	212 516.82
32	32 492.94	664 686.80	127.3745	8 709.1777	21 898.40	187 455.32
33	31 267.16	632 193.86	130.4511	8 581.8032	19 240.83	165 556.92
34	30 084.13	600 926.70	133.2403	8 451.3521	16 961.81	146 316.09
35	28 942.42	570 842.57	135.7665	8 318.1118	14 985.68	129 354.28
36	27 840.67	541 900.15	138.0130	8 182.3553	13 254.33	114 368.60
37	26 776.53	514 059.48	140.3579	8 044.3423	11 735.87	101 114.27
38	25 749.13	487 282.95	142.4491	7 903.9844	10 391.37	89 378.40
39	24 756.03	461 533.82	144.9309	7 761.5353	9 210.992	78 987.032

Commutation Columns for Disability Occurring Before Attaining Age 65

3%

Hunter's Disability Table

x	D_x^{aa}	N_x^{aa}	D_x^{ii}	N_x^{ii}	D_x^{i}	N_x^{i}
40	23 796.47	436 777.79	147.4538	7 616.6044	8 173.638	69 776.040
41	22 868.55	412 981.32	150.3021	7 469.1506	7 261.047	61 602.402
42	21 971.59	390 112.77	153.1484	7 318.8485	6 450.348	54 341.355
43	21 103.84	368 141.18	156.2624	7 165.7001	5 730.163	47 891.007
44	20 264.46	347 037.34	159.3375	7 009.4377	5 084.824	42 160.844
45	19 451.58	326 772.88	162.6298	6 850.1002	4 512.165	37 076.020
46	18 664.49	307 321.30	165.8518	6 687.4704	3 999.618	32 563.855
47	17 901.27	288 656.81	169.2467	6 521.6186	3 541.409	28 564.237
48	17 160.62	270 755.54	173.0291	6 352.3719	3 135.694	25 022.828
49	16 441.35	253 594.92	176.9176	6 179.3428	2 773.415	21 887.134
50	15 741.67	237 153.57	181.1170	6 002.4252	2 450.299	19 113.719
51	15 060.16	221 411.90	185.8076	5 821.3082	2 162.448	16 663.420
52	14 395.75	206 351.74	190.9314	5 635.5006	1 906.314	14 500.972
53	13 747.46	191 955.99	196.4340	5 444.5692	1 676.816	12 594.658
54	13 114.38	178 208.53	202.2648	5 248.1352	1 471.691	10 917.842
55	12 495.50	165 094.15	208.3764	5 045.8704	1 287.372	9 446.151
56	11 889.51	152 598.65	215.2977	4 837.4940	1 123.638	8 158.779
57	11 295.24	140 709.14	223.3082	4 622.1963	978.5473	7 035.1413
58	10 711.81	129 413.90	232.6502	4 398.8881	850.2911	6 056.5940
59	10 138.46	118 702.09	243.5313	4 166.2379	737.1941	5 206.3029
60	9 574.134	108 563.625	256.2970	3 922.7066	637.7087	4 469.1088
61	9 017.936	98 989.491	271.4082	3 666.4096	550.4107	3 831.4001
62	8 469.216	89 971.555	289.1014	3 395.0014	473.9945	3 280.9894
63	7 927.257	81 502.339	309.8830	3 105.9000	407.7273	2 806.9949
64	7 391.437	73 575.082	334.3361	2 796.0170	350.7246	2 399.2676
65	6 862.096	66 183.645	362.0800	2 461.6809	301.3508	2 048.5430
66	6 421.145	59 321.549	311.1637	2 099.6009	258.9276	1 747.1922
67	5 983.222	52 900.404	267.3225	1 788.4372	222.4766	1 488.2646
68	5 549.685	46 917.182	229.6569	1 521.1147	191.1571	1 265.7880
69	5 121.887	41 367.497	197.3409	1 291.4578	164.2466	1 074.6309
70	4 701.546	36 245.610	169.6174	1 094.1169	141.1245	910.3843
71	4 290.309	31 544.064	145.7938	924.4995	121.2575	769.2598
72	3 890.349	27 253.755	125.1188	778.7057	104.0695	648.0023
73	3 503.692	23 363.406	107.3738	653.5869	89.31794	543.93275
74	3 132.666	19 859.714	92.12734	546.21313	76.65734	454.61481
75	2 779.410	16 727.048	78.98528	454.08579	65.71692	377.95747
76	2 445.661	13 947.638	67.58834	375.10051	56.27410	312.24055
77	2 132.590	11 501.977	57.81521	307.51217	48.13348	255.96645
78	1 841.066	9 369.387	49.35165	249.69696	41.07702	207.83297
79	1 571.683	7 528.321	41.91285	200.34531	34.85564	166.75595
80	1 324.983	5 956.638	35.24141	158.43246	29.33965	131.90031

PART III

Values of
Probability Functions
and
Statistical Functions

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
.00	.00000	.39894	−.39894	.00000	1.19683	.00
.01	.00399	.39892	−.39888	.01197	1.19653	.01
.02	.00798	.39886	−.39870	.02393	1.19563	.02
.03	.01197	.39876	−.39840	.03588	1.19414	.03
.04	.01595	.39862	−.39799	.04781	1.19204	.04
.05	.01994	.39844	−.39745	.05972	1.18936	.05
.06	.02392	.39822	−.39679	.07159	1.18608	.06
.07	.02790	.39797	−.39602	.08344	1.18221	.07
.08	.03188	.39767	−.39512	.09524	1.17775	.08
.09	.03586	.39733	−.39411	.10699	1.17271	.09
.10	.03983	.39695	−.39298	.11869	1.16708	.10
.11	.04380	.39654	−.39174	.13033	1.16088	.11
.12	.04776	.39608	−.39038	.14190	1.15410	.12
.13	.05172	.39559	−.38890	.15341	1.14676	.13
.14	.05567	.39505	−.38731	.16484	1.13885	.14
.15	.05962	.39448	−.38560	.17618	1.13038	.15
.16	.06356	.39387	−.38379	.18744	1.12137	.16
.17	.06749	.39322	−.38186	.19861	1.11180	.17
.18	.07142	.39253	−.37981	.20968	1.10170	.18
.19	.07535	.39181	−.37766	.22064	1.09106	.19
.20	.07926	.39104	−.37540	.23150	1.07990	.20
.21	.08317	.39024	−.37303	.24224	1.06823	.21
.22	.08706	.38940	−.37056	.25286	1.05604	.22
.23	.09095	.38853	−.36798	.26336	1.04335	.23
.24	.09483	.38762	−.36529	.27373	1.03018	.24
.25	.09871	.38667	−.36250	.28396	1.01651	.25
.26	.10257	.38568	−.35961	.29405	1.00238	.26
.27	.10642	.38466	−.35662	.30401	0.98778	.27
.28	.11026	.38361	−.35353	.31381	0.97273	.28
.29	.11409	.38251	−.35035	.32346	0.95723	.29
.30	.11791	.38139	−.34706	.33295	0.94130	.30
.31	.12172	.38023	−.34369	.34228	0.92495	.31
.32	.12552	.37903	−.34022	.35145	0.90819	.32
.33	.12930	.37780	−.33666	.36045	0.89103	.33
.34	.13307	.37654	−.33301	.36927	0.87348	.34
.35	.13683	.37524	−.32927	.37791	0.85555	.35
.36	.14058	.37391	−.32545	.38638	0.83726	.36
.37	.14431	.37255	−.32155	.39466	0.81862	.37
.38	.14803	.37115	−.31756	.40275	0.79963	.38
.39	.15173	.36973	−.31349	.41065	0.78032	.39
.40	.15542	.36827	−.30935	.41835	0.76070	.40
.41	.15910	.36678	−.30586	.42586	0.74077	.41
.42	.16276	.36526	−.30083	.43317	0.72056	.42
.43	.16640	.36371	−.29646	.44027	0.70007	.43
.44	.17003	.36213	−.29203	.44717	0.67932	.44
.45	.17364	.36053	−.28752	.45386	0.65832	.45
.46	.17724	.35889	−.28295	.46034	0.63709	.46
.47	.18082	.35723	−.27831	.46660	0.61564	.47
.48	.18439	.35553	−.27362	.47265	0.59398	.48
.49	.18793	.35381	−.26886	.47848	0.57213	.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
.00	−0.00000	−5.98413	0.00000	41.88894	.00
.01	−0.05983	−5.98204	0.41883	41.87009	.01
.02	−0.11963	−5.97576	0.83728	41.81357	.02
.03	−0.17934	−5.96530	1.25497	41.71943	.03
.04	−0.23892	−5.95066	1.67154	41.58778	.04
.05	−0.29834	−5.93187	2.08660	41.41877	.05
.06	−0.35754	−5.90894	2.49979	41.21257	.06
.07	−0.41650	−5.88188	2.91073	40.96943	.07
.08	−0.47517	−5.85073	3.31906	40.68960	.08
.09	−0.53350	−5.81551	3.72440	40.37338	.09
.10	−0.59146	−5.77625	4.12640	40.02114	.10
.11	−0.64901	−5.73300	4.52471	39.63325	.11
.12	−0.70611	−5.68577	4.91895	39.21014	.12
.13	−0.76272	−5.63463	5.30879	38.75227	.13
.14	−0.81879	−5.57961	5.69388	38.26015	.14
.15	−0.87429	−5.52077	6.07388	37.73431	.15
.16	−0.92919	−5.45815	6.44846	37.17533	.16
.17	−0.98345	−5.39182	6.81728	36.58381	.17
.18	−1.03702	−5.32183	7.18003	35.96040	.18
.19	−1.08987	−5.24824	7.53639	35.30578	.19
.20	−1.14197	−5.17112	7.88604	34.62066	.20
.21	−1.19328	−5.09054	8.22870	33.90578	.21
.22	−1.24377	−5.00657	8.56406	33.16193	.22
.23	−1.29340	−4.91929	8.89185	32.38989	.23
.24	−1.34214	−4.82876	9.21177	31.59052	.24
.25	−1.38997	−4.73508	9.52357	30.76466	.25
.26	−1.43684	−4.63832	9.82698	29.91323	.26
.27	−1.48272	−4.53857	10.12175	29.03711	.27
.28	−1.52760	−4.43591	10.40764	28.13726	.28
.29	−1.57143	−4.33045	10.63442	27.21464	.29
.30	−1.61420	−4.22226	10.95186	26.27024	.30
.31	−1.65587	−4.11144	11.20975	25.30506	.31
.32	−1.69642	−3.99809	11.45790	24.32014	.32
.33	−1.73582	−3.88232	11.69610	23.31650	.33
.34	−1.77406	−3.76421	11.92417	22.29523	.34
.35	−1.81110	−3.64387	12.14194	21.25739	.35
.36	−1.84693	−3.52140	12.34926	20.20408	.36
.37	−1.88152	−3.39692	12.54598	19.13641	.37
.38	−1.91486	−3.27052	12.73195	18.05549	.38
.39	−1.94692	−3.14231	12.90705	16.96246	.39
.40	−1.97770	−3.01241	13.07116	15.85844	.40
.41	−2.00717	−2.88093	13.22418	14.74459	.41
.42	−2.03531	−2.74797	13.36602	13.62205	.42
.43	−2.06212	−2.61365	13.49660	12.49198	.43
.44	−2.08758	−2.47807	13.61584	11.35555	.44
.45	−2.11168	−2.34137	13.72369	10.21391	.45
.46	−2.13441	−2.20364	13.82011	9.06822	.46
.47	−2.15575	−2.06500	13.90505	7.91965	.47
.48	−2.17570	−1.92558	13.97849	6.76935	.48
.49	−2.19426	−1.78547	14.04043	5.61849	.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
.50	.19146	.35207	−.26405	.48409	.55010	.50
.51	.19497	.35029	−.25918	.48948	.52791	.51
52	.19847	.34849	−.25426	.49465	.50556	.52
.53	.20194	.34667	−.24929	.49959	.48308	.53
54	.20540	.34482	−.24427	.50431	.46048	.54
.55	.20884	.34294	−.23920	.50880	.43777	.55
.56	.21226	.34105	−.23409	.51306	.41497	.56
.57	.21566	.33912	−.22894	.51710	.39208	.57
.58	.21904	.33718	−.22375	.52091	.36913	.58
.59	.22240	.33521	−.21853	.52448	.34613	.59
.60	.22575	.33322	−.21326	.52783	.32309	.60
.61	.22907	.33121	−.20797	.53094	.30003	.61
.62	.23237	.32918	−.20265	.53383	.27696	.62
.63	.23565	.32713	−.19729	.53648	.25390	.63
.64	.23891	.32506	−.19192	.53891	.23085	.64
.65	.24215	.32297	−.18652	.54110	.20783	.65
.66	.24537	.32086	−.18110	.54306	.18486	.66
.67	.24857	.31874	−.17566	.54480	.16195	.67
.68	.25175	.31659	−.17020	.54630	.13912	.68
.69	.25490	.31443	−.16473	.54758	.11636	.69
.70	.25804	.31225	−.15925	.54863	.09371	.70
.71	.26115	.31006	−.15376	.54945	.07116	.71
.72	.26424	.30785	−.14826	.55005	.04874	.72
.73	.26730	.30563	−.14276	.55043	.02646	.73
.74	.27035	.30339	−.13725	.55058	.00433	.74
.75	.27337	.30114	−.13175	.55052	−.01764	.75
.76	.27637	.29887	−.12624	.55023	−.03944	.76
.77	.27935	.29659	−.12074	.54973	−.06106	.77
.78	.28230	.29431	−.11525	.54901	−.08248	.78
.79	.28524	.29200	−.10976	.54808	−.10369	.79
.80	.28814	.28969	−.10429	.54694	−.12468	.80
.81	.29103	.28737	−.09883	.54559	−.14545	.81
.82	.29389	.28504	−.09338	.54403	−.16597	.82
.83	.29673	.28269	−.08795	.54227	−.18624	.83
.84	.29955	.28034	−.08253	.54031	−.20626	.84
.85	.30234	.27798	−.07714	.53814	−.22600	.85
.86	.30511	.27562	−.07177	.53579	−.24546	.86
.87	.30785	.27324	−.06643	.53324	−.26464	.87
.88	.31057	.27086	−.06111	.53049	−.28351	.88
.89	.31327	.26848	−.05582	.52757	−.30208	.89
.90	.31594	.26609	−.05056	.52445	−.32034	.90
.91	.31859	.26369	−.04533	.52116	−.33827	.91
.92	.32121	.26129	−.04013	.51769	−.35587	.92
.93	.32381	.25888	−.03497	.51404	−.37314	.93
.94	.32639	.25647	−.02985	.51023	−.39005	94
.95	.32894	.25406	−.02477	.50624	−.40662	.95
.96	.33147	.25164	−.01973	.50210	−.42283	.96
.97	.33398	.24923	−.01473	.49779	−.43867	.97
.98	.33646	.24681	−.00977	.49332	−.45414	.98
.99	.33891	.24439	−.00486	.48871	−.46923	.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
.50	−2.21141	−1.64481	14.09086	4.46820	.50
.51	−2.22715	−1.50369	14.12980	3.31965	.51
.52	−2.24148	−1.36225	14.15727	2.17395	.52
.53	−2.25440	−1.22058	14.17329	1.03225	.53
.54	−2.26589	−1.07882	14.17793	− 0.10435	.54
.55	−2.27597	−0.93706	14.17123	− 1.23473	.55
.56	−2.28464	−0.79543	14.15326	− 2.35780	.56
.57	−2.29188	−0.65404	14.12410	− 3.47248	.57
.58	−2.29772	−0.51299	14.08384	− 4.57771	.58
.59	−2.30214	−0.37240	14.03258	− 5.67245	.59
.60	−2.30517	−0.23237	13.97043	− 6.75565	.60
.61	−2.30679	−0.09302	13.89751	− 7.82632	.61
.62	−2.30703	0.04554	13.81395	− 8.88345	.62
.63	−2.30589	0.18322	13.71989	− 9.92607	.63
.64	−2.30337	0.31991	13.61548	−10.95325	.64
.65	−2.29949	0.45550	13.50088	−11.96404	.65
.66	−2.29426	0.58989	13.37626	−12.95756	.66
.67	−2.28770	0.72299	13.24179	−13.93292	.67
.68	−2.27981	0.85469	13.09766	−14.88926	.68
.69	−2.27061	0.98491	12.94407	−15.82578	.69
.70	−2.26012	1.11354	12.78121	−16.74166	.70
.71	−2.24834	1.24050	12.60931	−17.63614	.71
.72	−2.23531	1.36570	12.42857	−18.50847	.72
.73	−2.22104	1.48905	12.23921	−19.35795	.73
.74	−2.20554	1.61046	12.04148	−20.18390	.74
.75	−2.18883	1.72985	11.83562	−20.98566	.75
.76	−2.17095	1.84714	11.62185	−21.76261	.76
.77	−2.15190	1.96226	11.40045	−22.51418	.77
.78	−2.13171	2.07513	11.17166	−23.23978	.78
.79	−2.11040	2.18567	10.93574	−23.93893	.79
.80	−2.08800	2.29382	10.69297	−24.61111	.80
.81	−2.06454	2.39951	10.44361	−25.25588	.81
.82	−2.04002	2.50267	10.18794	−25.87281	.82
.83	−2.01449	2.60325	9.92625	−26.46151	.83
.84	−1.98797	2.70118	9.65881	−27.02163	.84
.85	−1.96048	2.79640	9.38591	−27.55286	.85
.86	−1.93205	2.88888	9.10785	−28.05489	.86
.87	−1.90271	2.97855	8.82491	−28.52749	.87
.88	−1.87249	3.06536	8.53740	−28.97044	.88
.89	−1.84141	3.14928	8.24560	−29.38354	.89
.90	−1.80951	3.23026	7.94983	−29.76665	.90
.91	−1.77681	3.30826	7.65037	−30.11967	.91
.92	−1.74335	3.38326	7.34753	−30.44252	.92
.93	−1.70916	3.45520	7.04162	−30.73513	.93
.94	−1.67426	3.52408	6.73293	−30.99751	.94
.95	−1.63869	3.58985	6.42177	−31.22966	.95
.96	−1.60247	3.65251	6.10844	−31.43164	.96
.97	−1.56565	3.71202	5.79324	−31.60356	.97
.98	−1.52824	3.76837	5.47647	−31.74550	.98
.99	−1.49029	3.82154	5.15843	−31.85764	.99

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
1.00	.34134	.24197	.00000	.48394	−.48394	1.00
1.01	.34375	.23955	.00482	.47903	−.49827	1.01
1.02	.34614	.23713	.00958	.47398	−.51220	1.02
1.03	.34850	.23471	.01429	.46879	−.52573	1.03
1.04	.35083	.23230	.01896	.46346	−.53887	1.04
1.05	.35314	.22988	.02356	.45801	−.55160	1.05
1.06	.35543	.22747	.02812	.45243	−.56393	1.06
1.07	.35769	.22506	.03261	.44673	−.57584	1.07
1.08	.35993	.22265	.03705	.44092	−.58734	1.08
1.09	.36214	.22025	.04143	.43499	−.59843	1.09
1.10	.36433	.21785	.04575	.42895	−.60909	1.10
1.11	.36650	.21546	.05001	.42281	−.61934	1.11
1.12	.36864	.21307	.05420	.41657	−.62917	1.12
1.13	.37076	.21069	.05834	.41023	−.63857	1.13
1.14	.37286	.20831	.06241	.40380	−.64755	1.14
1.15	.37493	.20594	.06641	.39728	−.65611	1.15
1.16	.37698	.20357	.07035	.39067	−.66425	1.16
1.17	.37900	.20121	.07423	.38399	−.67196	1.17
1.18	.38100	.19886	.07803	.37724	−.67924	1.18
1.19	.38298	.19652	.08177	.37041	−.68610	1.19
1.20	.38493	.19419	.08544	.36352	−.69255	1.20
1.21	.38686	.19186	.08904	.35656	−.69857	1.21
1.22	.38877	.18954	.09257	.34955	−.70417	1.22
1.23	.39065	.18724	.09603	.34248	−.70935	1.23
1.24	.39251	.18494	.09942	.33536	−.71411	1.24
1.25	.39435	.18265	.10274	.32820	−.71847	1.25
1.26	.39617	.18037	.10599	.32099	−.72241	1.26
1.27	.39796	.17810	.10916	.31375	−.72594	1.27
1.28	.39973	.17585	.11226	.30648	−.72907	1.28
1.29	.40147	.17360	.11529	.29917	−.73180	1.29
1.30	.40320	.17137	.11824	.29184	−.73413	1.30
1.31	.40490	.16915	.12113	.28449	−.73606	1.31
1.32	.40658	.16694	.12393	.27712	−.73760	1.32
1.33	.40824	.16474	.12667	.26974	−.73876	1.33
1.34	.40988	.16256	.12933	.26235	−.73953	1.34
1.35	.41149	.16038	.13192	.25495	−.73993	1.35
1.36	.41309	.15822	.13443	.24755	−.73995	1.36
1.37	.41466	.15608	.13687	.24015	−.73961	1.37
1.38	.41621	.15395	.13923	.23276	−.73890	1.38
1.39	.41774	.15183	.14152	.22537	−.73784	1.39
1.40	.41924	.14973	.14374	.21800	−.73642	1.40
1.41	.42073	.14764	.14588	.21065	−.73466	1.41
1.42	.42220	.14556	.14795	.20331	−.73256	1.42
1.43	.42364	.14350	.14995	.19600	−.73012	1.43
1.44	.42507	.14146	.15187	.18871	−.72736	1.44
1.45	.42647	.13943	.15372	.18145	−.72427	1.45
1.46	.42786	.13742	.15550	.17423	−.72087	1.46
1.47	.42922	.13542	.15721	.16704	−.71716	1.47
1.48	.43056	.13344	.15884	.15988	−.71315	1.48
1.49	.43189	.13147	.16040	.15277	−.70885	1.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
1.00	−1.45182	3.87153	4.83941	−31.94013	1.00
1.01	−1.41287	3.91833	4.51972	−31.99322	1.01
1.02	−1.37347	3.96193	4.19965	−32.01712	1.02
1.03	−1.33364	4.00232	3.87948	−32.01211	1.03
1.04	−1.29343	4.03951	3.55950	−31.97849	1.04
1.05	−1.25286	4.07351	3.24000	−31.91658	1.05
1.06	−1.21197	4.10432	2.92126	−31.82676	1.06
1.07	−1.17079	4.13194	2.60356	−31.70939	1.07
1.08	−1.12934	4.15639	2.28716	−31.56489	1.08
1.09	−1.08767	4.17769	1.97235	−31.39369	1.09
1.10	−1.04580	4.19585	1.65938	−31.19624	1.10
1.11	−1.00377	4.21088	1.34851	−30.97304	1.11
1.12	−0.96159	4.22282	1.04000	−30.72457	1.12
1.13	−0.91932	4.23169	0.73410	−30.45139	1.13
1.14	−0.87697	4.23751	0.43105	−30.15397	1.14
1.15	−0.83458	4.24032	0.13110	−29.83304	1.15
1.16	−0.79217	4.24015	−0.16553	−29.48903	1.16
1.17	−0.74979	4.23702	−0.45861	−29.12260	1.17
1.18	−0.70744	4.23099	−0.74791	−28.73439	1.18
1.19	−0.66518	4.22208	−1.03322	−28.32503	1.19
1.20	−0.62301	4.21034	−1.31434	−27.89517	1.20
1.21	−0.58098	4.19581	−1.59106	−27.44548	1.21
1.22	−0.53910	4.17853	−1.86319	−26.97665	1.22
1.23	−0.49742	4.15856	−2.13053	−26.48937	1.23
1.24	−0.45594	4.13594	−2.39291	−25.98436	1.24
1.25	−0.41471	4.11072	−2.65016	−25.46233	1.25
1.26	−0.37374	4.08295	−2.90211	−24.92402	1.26
1.27	−0.33306	4.05269	−3.14859	−24.37015	1.27
1.28	−0.29269	4.02000	−3.38946	−23.80149	1.28
1.29	−0.25266	3.98492	−3.62457	−23.21877	1.29
1.30	−0.21300	3.94753	−3.85379	−22.62277	1.30
1.31	−0.17372	3.90787	−4.07699	−22.01424	1.31
1.32	−0.13485	3.86601	−4.29404	−21.39393	1.32
1.33	−0.09641	3.82201	−4.50483	−20.76264	1.33
1.34	−0.05842	3.77593	−4.70926	−20.12114	1.34
1.35	−0.02090	3.72785	−4.90722	−19.47017	1.35
1.36	0.01613	3.67781	−5.09863	−18.81054	1.36
1.37	0.05265	3.62590	−5.28341	−18.14300	1.37
1.38	0.08865	3.57217	−5.46147	−17.46834	1.38
1.39	0.12409	3.51669	−5.63275	−16.78730	1.39
1.40	0.15897	3.45953	−5.79720	−16.10066	1.40
1.41	0.19328	3.40077	−5.95475	−15.40918	1.41
1.42	0.22698	3.34046	−6.10536	−14.71361	1.42
1.43	0.26008	3.27869	−6.24901	−14.01471	1.43
1.44	0.29255	3.21551	−6.38565	−13.31320	1.44
1.45	0.32439	3.15099	−6.51527	−12.60983	1.45
1.46	0.35557	3.08522	−6.63784	−11.90531	1.46
1.47	0.38609	3.01826	−6.75337	−11.20037	1.47
1.48	0.41593	2.95018	−6.86185	−10.49571	1.48
1.49	0.44509	2.88105	−6.96329	−9.79203	1.49

$$\mathbf{F}(t) = \frac{\mathbf{N}}{\sigma}\left[\varphi(t) + \mathbf{A}_3\varphi^{(3)}(t) + \mathbf{A}_4\varphi^{(4)}(t) + \mathbf{A}_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
1.50	.43319	.12952	.16190	.14571	−.70425	1.50
1.51	.43448	.12758	.16332	.13869	−.69938	1.51
1.52	.43574	.12566	.16467	.13172	−.69423	1.52
1.53	.43699	.12376	.16595	.12481	−.68881	1.53
1.54	.43822	.12188	.16717	.11795	−.68314	1.54
1.55	.43943	.12001	.16831	.11114	−.67721	1.55
1.56	.44062	.11816	.16939	.10440	−.67104	1.56
1.57	.44179	.11632	.17040	.09772	−.66463	1.57
1.58	.44295	.11450	.17135	.09111	−.65799	1.58
1.59	.44408	.11270	.17222	.08456	−.65113	1.59
1.60	.44520	.11092	.17304	.07809	−.64405	1.60
1.61	.44630	.10915	.17379	.07168	−.63677	1.61
1.62	.44738	.10741	.17447	.06535	−.62928	1.62
1.63	.44845	.10567	.17509	.05910	−.62161	1.63
1.64	.44950	.10396	.17565	.05292	−.61375	1.64
1.65	.45053	.10226	.17615	.04682	−.60571	1.65
1.66	.45154	.10059	.17659	.04081	−.59751	1.66
1.67	.45254	.09893	.17697	.03487	−.58914	1.67
1.68	.45352	.09728	.17729	.02903	−.58063	1.68
1.69	.45449	.09566	.17755	.02326	−.57196	1.69
1.70	.45543	.09405	.17775	.01759	−.56316	1.70
1.71	.45637	.09246	.17790	.01200	−.55422	1.71
1.72	.45728	.09089	.17799	.00650	−.54516	1.72
1.73	.45818	.08933	.17803	.00110	−.53599	1.73
1.74	.45907	.08780	.17802	−.00422	−.52671	1.74
1.75	.45994	.08628	.17795	−.00944	−.51733	1.75
1.76	.46080	.08478	.17783	−.01456	−.50785	1.76
1.77	.46164	.08329	.17766	−.01959	−.49829	1.77
1.78	.46246	.08183	.17744	−.02453	−.48865	1.78
1.79	.46327	.08038	.17717	−.02937	−.47893	1.79
1.80	.46407	.07895	.17685	−.03411	−.46915	1.80
1.81	.46485	.07754	.17648	−.03875	−.45932	1.81
1.82	.46562	.07614	.17607	−.04329	−.44943	1.82
1.83	.46638	.07477	.17562	−.04774	−.43950	1.83
1.84	.46712	.07341	.17512	−.05208	−.42953	1.84
1.85	.46784	.07206	.17458	−.05633	−.41953	1.85
1.86	.46856	.07074	.17399	−.06047	−.40950	1.86
1.87	.46926	.06943	.17337	−.06452	−.39946	1.87
1.88	.46995	.06814	.17270	−.06846	−.38940	1.88
1.89	.47062	.06687	.17200	−.07231	−.37934	1.89
1.90	.47128	.06562	.17126	−.07605	−.36928	1.90
1.91	.47193	.06438	.17048	−.07969	−.35923	1.91
1.92	.47257	.06316	.16966	−.08323	−.34918	1.92
1.93	.47320	.06195	.16881	−.08667	−.33916	1.93
1.94	.47381	.06077	.16793	−.09002	−.32916	1.94
1.95	.47441	.05959	.16701	−.09326	−.31919	1.95
1.96	.47500	.05844	.16607	−.09640	−.30925	1.96
1.97	.47558	.05730	.16509	−.09944	−.29936	1.97
1.98	.47615	.05618	.16408	−.10239	−.28950	1.98
1.99	.47670	.05508	.16304	−.10523	−.27970	1.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
1.50	0.47355	2.81094	−7.05770	−9.09001	1.50
1.51	0.50130	2.73992	−7.14510	−8.39032	1.51
1.52	0.52834	2.66806	−7.22551	−7.69362	1.52
1.53	0.55466	2.59543	−7.29898	−7.00057	1.53
1.54	0.58025	2.52210	−7.36554	−6.31178	1.54
1.55	0.60510	2.44814	−7.42523	−5.62788	1.55
1.56	0.62921	2.37362	−7.47812	−4.94948	1.56
1.57	0.65257	2.29860	−7.52424	−4.27715	1.57
1.58	0.67518	2.22316	−7.56368	−3.61148	1.58
1.59	0.69703	2.14735	−7.59650	−2.95302	1.59
1.60	0.71813	2.07125	−7.62276	−2.30231	1.60
1.61	0.73846	1.99492	−7.64257	−1.65988	1.61
1.62	0.75803	1.91842	−7.65600	−1.02622	1.62
1.63	0.77683	1.84182	−7.66312	−0.40183	1.63
1.64	0.79486	1.76518	−7.66406	0.21283	1.64
1.65	0.81213	1.68856	−7.65890	0.81729	1.65
1.66	0.82863	1.61202	−7.64775	1.41114	1.66
1.67	0.84437	1.53562	−7.63072	1.99395	1.67
1.68	0.85935	1.45942	−7.60791	2.56533	1.68
1.69	0.87356	1.38348	−7.57945	3.12490	1.69
1.70	0.88702	1.30785	−7.54546	3.67230	1.70
1.71	0.89972	1.23259	−7.50604	4.20720	1.71
1.72	0.91167	1.15775	−7.46135	4.72928	1.72
1.73	0.92288	1.08338	−7.41150	5.23823	1.73
1.74	0.93334	1.00954	−7.35664	5.73379	1.74
1.75	0.94307	0.93626	−7.29687	6.21567	1.75
1.76	0.95207	0.86362	−7.23237	6.68366	1.76
1.77	0.96034	0.79163	−7.16325	7.13752	1.77
1.78	0.96790	0.72036	−7.08966	7.57705	1.78
1.79	0.97475	0.64985	−7.01176	8.00206	1.79
1.80	0.98090	0.58014	−6.92967	8.41241	1.80
1.81	0.98636	0.51127	−6.84356	8.80792	1.81
1.82	0.99113	0.44329	−6.75356	9.18849	1.82
1.83	0.99523	0.37622	−6.65984	9.55400	1.83
1.84	0.99866	0.31010	−6.56253	9.90436	1.84
1.85	1.00143	0.24498	−6.46180	10.23950	1.85
1.86	1.00356	0.18088	−6.35779	10.55937	1.86
1.87	1.00505	0.11783	−6.25066	10.86393	1.87
1.88	1.00592	0.05587	−6.14057	11.15316	1.88
1.89	1.00617	−0.00497	−6.02765	11.42706	1.89
1.90	1.00583	−0.06467	−5.91208	11.68565	1.90
1.91	1.00489	−0.12320	−5.79399	11.92896	1.91
1.92	1.00337	−0.18054	−5.67355	12.15703	1.92
1.93	1.00128	−0.23667	−5.55090	12.36991	1.93
1.94	0.99864	−0.29156	−5.42620	12.56772	1.94
1.95	0.99545	−0.34519	−5.29960	12.75051	1.95
1.96	0.99174	−0.39754	−5.17124	12.91841	1.96
1.97	0.98751	−0.44861	−5.04128	13.07155	1.97
1.98	0.98277	−0.49836	−4.90985	13.21004	1.98
1.99	0.97754	−0.54680	−4.77712	13.33406	1.99

$$\mathbf{F}(t) = \frac{\mathbf{N}}{\sigma}\left[\varphi(t) + \mathbf{A}_3\varphi^{(3)}(t) + \mathbf{A}_4\varphi^{(4)}(t) + \mathbf{A}_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
2.00	.47725	.05399	.16197	−.10798	−.26996	2.00
2.01	.47778	.05292	.16088	−.11063	−.26027	2.01
2.02	.47831	.05186	.15976	−.11319	−.25064	2.02
2.03	.47882	.05082	.15862	−.11565	−.24109	2.03
2.04	.47932	.04980	.15745	−.11801	−.23160	2.04
2.05	.47982	.04879	.15626	−.12028	−.22220	2.05
2.06	.48030	.04780	.15504	−.12245	−.21287	2.06
2.07	.48077	.04682	.15381	−.12454	−.20363	2.07
2.08	.48124	.04586	.15255	−.12653	−.19448	2.08
2.09	.48169	.04491	.15128	−.12843	−.18542	2.09
2.10	.48214	.04398	.14998	−.13024	−.17646	2.10
2.11	.48257	.04307	.14867	−.13196	−.16759	2.11
2.12	.48300	.04217	.14735	−.13359	−.15883	2.12
2.13	.48341	.04128	.14600	−.13513	−.15017	2.13
2.14	.48382	.04041	.14464	−.13659	−.14162	2.14
2.15	.48422	.03955	.14327	−.13797	−.13318	2.15
2.16	.48461	.03871	.14188	−.13926	−.12486	2.16
2.17	.48500	.03788	.14049	−.14046	−.11665	2.17
2.18	.48537	.03706	.13907	−.14159	−.10856	2.18
2.19	.48574	.03626	.13765	−.14263	−.10059	2.19
2.20	.48610	.03547	.13622	−.14360	−.09274	2.20
2.21	.48645	.03470	.13478	−.14449	−.08502	2.21
2.22	.48679	.03394	.13333	−.14530	−.07743	2.22
2.23	.48713	.03319	.13188	−.14604	−.06996	2.23
2.24	.48745	.03246	.13041	−.14670	−.06263	2.24
2.25	.48778	.03174	.12894	−.14729	−.05542	2.25
2.26	.48809	.03103	.12747	−.14781	−.04835	2.26
2.27	.48840	.03034	.12599	−.14826	−.04141	2.27
2.28	.48870	.02965	.12450	−.14864	−.03461	2.28
2.29	.48899	.02898	.12301	−.14895	−.02794	2.29
2.30	.48928	.02833	.12152	−.14920	−.02141	2.30
2.31	.48956	.02768	.12003	−.14938	−.01502	2.31
2.32	.48983	.02705	.11854	−.14950	−.00877	2.32
2.33	.49010	.02643	.11704	−.14956	−.00265	2.33
2.34	.49036	.02582	.11554	−.14955	.00332	2.34
2.35	.49061	.02522	.11405	−.14949	.00915	2.35
2.36	.49086	.02463	.11256	−.14937	.01485	2.36
2.37	.49111	.02406	.11106	−.14919	.02040	2.37
2.38	.49134	.02349	.10957	−.14896	.02582	2.38
2.39	.49158	.02294	.10808	−.14868	.03109	2.39
2.40	.49180	.02239	.10660	−.14834	.03623	2.40
2.41	.49202	.02186	.10512	−.14795	.04122	2.41
2.42	.49224	.02134	.10364	−.14752	.04608	2.42
2.43	.49245	.02083	.10217	−.14703	.05079	2.43
2.44	.49266	.02033	.10070	−.14650	.05537	2.44
2.45	.49286	.01984	.09924	−.14593	.05981	2.45
2.46	.49305	.01936	.09778	−.14531	.06411	2.46
2.47	.49324	.01889	.09633	−.14464	.06828	2.47
2.48	.49343	.01842	.09489	−.14394	.07231	2.48
2.49	.49361	.01797	.09345	−.14320	.07621	2.49

$$\mathbf{F}(t) = \frac{\mathbf{N}}{\sigma}\left[\varphi(t) + \mathbf{A}_3\varphi^{(3)}(t) + \mathbf{A}_4\varphi^{(4)}(t) + \mathbf{A}_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
2.00	.97184	−0.59390	−4.64323	13.44376	2.00
2.01	.96567	−0.63966	−4.50830	13.53928	2.01
2.02	.95905	−0.68406	−4.37248	13.62087	2.02
2.03	.95199	−0.72711	−4.23592	13.68867	2.03
2.04	.94451	−0.76878	−4.09876	13.74293	2.04
2.05	.93662	−0.80908	−3.96111	13.78383	2.05
2.06	.92833	−0.84800	−3.82312	13.81165	2.06
2.07	.91966	−0.88554	−3.68492	13.82657	2.07
2.08	.91063	−0.92170	−3.54664	13.82890	2.08
2.09	.90124	−0.95647	−3.40839	13.81885	2.09
2.10	.89150	−0.98987	−3.27030	13.79670	2.10
2.11	.88144	−1.02188	−3.13249	13.76272	2.11
2.12	.87107	−1.05252	−2.99508	13.71720	2.12
2.13	.86040	−1.08178	−2.85818	13.66041	2.13
2.14	.84944	−1.10969	−2.72191	13.59269	2.14
2.15	.83821	−1.13622	−2.58636	13.51425	2.15
2.16	.82672	−1.16142	−2.45166	13.42550	2.16
2.17	.81499	−1.18526	−2.31789	13.32666	2.17
2.18	.80302	−1.20778	−2.18516	13.21807	2.18
2.19	.79083	−1.22897	−2.05356	13.10008	2.19
2.20	.77844	−1.24885	−1.92319	12.97297	2.20
2.21	.76586	−1.26744	−1.79413	12.83707	2.21
2.22	.75310	−1.28474	−1.66647	12.69275	2.22
2.23	.74017	−1.30077	−1.54030	12.54026	2.23
2.24	.72709	−1.31555	−1.41569	12.38001	2.24
2.25	.71386	−1.32909	−1.29273	12.21228	2.25
2.26	.70051	−1.34141	−1.17147	12.03738	2.26
2.27	.68704	−1.35253	−1.05200	11.85574	2.27
2.28	.67346	−1.36246	−0.93438	11.66758	2.28
2.29	.65979	−1.37122	−0.81867	11.47331	2.29
2.30	.64604	−1.37883	−0.70493	11.27318	2.30
2.31	.63222	−1.38533	−0.59323	11.06764	2.31
2.32	.61834	−1.39071	−0.48360	10.85690	2.32
2.33	.60441	−1.39500	−0.37610	10.64135	2.33
2.34	.59044	−1.39824	−0.27079	10.42129	2.34
2.35	.57645	−1.40043	−0.16769	10.19705	2.35
2.36	.56244	−1.40160	−0.06686	9.96898	2.36
2.37	.54842	−1.40177	0.03168	9.73734	2.37
2.38	.53441	−1.40097	0.12788	9.50246	2.38
2.39	.52041	−1.39923	0.22172	9.26467	2.39
2.40	.50642	−1.39654	0.31316	9.02422	2.40
2.41	.49248	−1.39297	0.40219	8.78150	2.41
2.42	.47857	−1.38851	0.48879	8.53671	2.42
2.43	.46471	−1.38320	0.57292	8.29020	2.43
2.44	.45091	−1.37706	0.65458	8.04225	2.44
2.45	.43717	−1.37012	0.73376	7.79311	2.45
2.46	.42351	−1.36239	0.81044	7.54307	2.46
2.47	.40993	−1.35392	0.88462	7.29240	2.47
2.48	.39643	−1.34471	0.95629	7.04136	2.48
2.49	.38303	−1.33480	1.02545	6.79021	2.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
2.50	.49379	.01753	.09202	−.14242	.07997	2.50
2.51	.49396	.01709	.09060	−.14160	.08360	2.51
2.52	.49413	.01667	.08919	−.14075	.08710	2.52
2.53	.49430	.01625	.08779	−.13986	.09047	2.53
2.54	.49446	.01585	.08639	−.13894	.09372	2.54
2.55	.49461	.01545	.08501	−.13798	.09683	2.55
2.56	.49477	.01506	.08364	−.13700	.09982	2.56
2.57	.49492	.01468	.08227	−.13599	.10268	2.57
2.58	.49506	.01431	.08092	−.13495	.10542	2.58
2.59	.49520	.01394	.07957	−.13388	.10804	2.59
2.60	.49534	.01358	.07824	−.13279	.11053	2.60
2.61	.49547	.01323	.07692	−.13167	.11291	2.61
2.62	.49560	.01289	.07560	−.13053	.11517	2.62
2.63	.49573	.01256	.07431	−.12937	.11732	2.63
2.64	.49585	.01223	.07302	−.12818	.11935	2.64
2.65	.49598	.01191	.07174	−.12698	.12127	2.65
2.66	.49609	.01160	.07048	−.12576	.12308	2.66
2.67	.49621	.01130	.06923	−.12452	.12479	2.67
2.68	.49632	.01100	.06799	−.12326	.12638	2.68
2.69	.49643	.01071	.06676	−.12199	.12787	2.69
2.70	.49653	.01042	.06555	−.12071	.12926	2.70
2.71	.49664	.01014	.06435	−.11941	.13055	2.71
2.72	.49674	.00987	.06316	−.11810	.13174	2.72
2.73	.49683	.00961	.06199	−.11677	.13283	2.73
2.74	.49693	.00935	.06082	−.11544	.13383	2.74
2.75	.49702	.00909	.05968	−.11410	.13473	2.75
2.76	.49711	.00885	.05854	−.11274	.13555	2.76
2.77	.49720	.00861	.05742	−.11139	.13627	2.77
2.78	.49728	.00837	.05631	−.11002	.13691	2.78
2.79	.49736	.00814	.05522	−.10865	.13746	2.79
2.80	.49744	.00792	.05414	−.10727	.13793	2.80
2.81	.49752	.00770	.05308	−.10589	.13832	2.81
2.82	.49760	.00748	.05202	−.10450	.13863	2.82
2.83	.49767	.00727	.05099	−.10312	.13886	2.83
2.84	.49774	.00707	.04996	−.10173	.13902	2.84
2.85	.49781	.00687	.04895	−.10034	.13910	2.85
2.86	.49788	.00668	.04795	−.09895	.13912	2.86
2.87	.49795	.00649	.04697	−.09755	.13906	2.87
2.88	.49801	.00631	.04600	−.09616	.13894	2.88
2.89	.49807	.00613	.04505	−.09478	.13875	2.89
2.90	.49813	.00595	.04411	−.09339	.13850	2.90
2.91	.49819	.00578	.04318	−.09201	.13819	2.91
2.92	.49825	.00562	.04227	−.09063	.13782	2.92
2.93	.49831	.00545	.04137	−.08925	.13739	2.93
2.94	.49836	.00530	.04048	−.08788	.13691	2.94
2.95	.49841	.00514	.03961	−.08651	.13638	2.95
2.96	.49846	.00499	.03875	−.08515	.13579	2.96
2.97	.49851	.00485	.03791	−.08380	.13515	2.97
2.98	.49856	.00471	.03708	−.08245	.13446	2.98
2.99	.49861	.00457	.03626	−.08111	.13373	2.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
2.50	.36974	−1.32421	1.09210	6.53922	2.50
2.51	.35655	−1.31296	1.15623	6.28860	2.51
2.52	.34348	−1.30109	1.21787	6.03861	2.52
2.53	.33053	−1.28862	1.27701	5.78948	2.53
2.54	.31771	−1.27556	1.33366	5.54142	2.54
2.55	.30502	−1.26195	1.38784	5.29466	2.55
2.56	.29247	−1.24781	1.43956	5.04940	2.56
2.57	.28007	−1.23317	1.48884	4.80586	2.57
2.58	.26781	−1.21804	1.53568	4.56423	2.58
2.59	.25571	−1.20246	1.58013	4.32470	2.59
2.60	.24376	−1.18645	1.62219	4.08745	2.60
2.61	.23198	−1.17003	1.66188	3.85260	2.61
2.62	.22036	−1.15322	1.69925	3.62050	2.62
2.63	.20892	−1.13605	1.73430	3.39112	2.63
2.64	.19764	−1.11854	1.76708	3.16469	2.64
2.65	.18655	−1.10071	1.79761	2.94134	2.65
2.66	.17563	−1.08260	1.82592	2.72122	2.66
2.67	.16490	−1.06420	1.85204	2.50447	2.67
2.68	.15435	−1.04556	1.87602	2.29120	2.68
2.69	.14399	−1.02669	1.89788	2.08154	2.69
2.70	.13381	−1.00761	1.91766	1.87559	2.70
2.71	.12383	−0.98834	1.93541	1.67344	2.71
2.72	.11405	−0.96891	1.95114	1.47525	2.72
2.73	.10446	−0.94933	1.96492	1.28105	2.73
2.74	.09506	−0.92962	1.97678	1.09095	2.74
2.75	.08586	−0.90980	1.98676	0.90501	2.75
2.76	.07687	−0.88989	1.99489	0.72331	2.76
2.77	.06807	−0.86991	2.00125	0.54592	2.77
2.78	.05947	−0.84987	2.00583	0.37289	2.78
2.79	.05107	−0.82980	2.00871	0.20427	2.79
2.80	.04287	−0.80970	2.00993	0.04011	2.80
2.81	.03488	−0.78960	2.00953	−0.11955	2.81
2.82	.02708	−0.76952	2.00755	−0.27468	2.82
2.83	.01949	−0.74946	2.00405	−0.42526	2.83
2.84	.01209	−0.72944	1.99906	−0.57126	2.84
2.85	.00490	−0.70948	1.99264	−0.71266	2.85
2.86	−.00210	−0.68959	1.98482	−0.84945	2.86
2.87	−.00890	−0.66979	1.97566	−0.98164	2.87
2.88	−.01549	−0.65008	1.96521	−1.10921	2.88
2.89	−.02190	−0.63049	1.95349	−1.23218	2.89
2.90	−.02810	−0.61102	1.94058	−1.35056	2.90
2.91	−.03412	−0.59168	1.92650	−1.46435	2.91
2.92	−.03994	−0.57249	1.91130	−1.57358	2.92
2.93	−.04557	−0.55346	1.89506	−1.67829	2.93
2.94	−.05101	−0.53459	1.87775	−1.77845	2.94
2.95	−.05626	−0.51591	1.85949	−1.87415	2.95
2.96	−.06133	−0.49741	1.84029	−1.96541	2.96
2.97	−.06621	−0.47910	1.82019	−2.05226	2.97
2.98	−.07091	−0.46101	1.79926	−2.13475	2.98
2.99	−.07543	−0.44312	1.77751	−2.21292	2.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
3.00	.49865	.00443	.03545	−.07977	.13296	3.00
3.01	.49869	.00430	.03466	−.07845	.13214	3.01
3.02	.49874	.00417	.03389	−.07713	.13128	3.02
3.03	.49878	.00405	.03312	−.07582	.13038	3.03
3.04	.49882	.00393	.03237	−.07452	.12944	3.04
3.05	.49886	.00381	.03163	−.07323	.12847	3.05
3.06	.49889	.00370	.03090	−.07195	.12747	3.06
3.07	.49893	.00358	.03019	−.07068	.12643	3.07
3.08	.49897	.00348	.02949	−.06943	.12536	3.08
3.09	.49900	.00337	.02880	−.06818	.12426	3.09
3.10	.49903	.00327	.02813	−.06694	.12313	3.10
3.11	.49906	.00317	.02746	−.06571	.12198	3.11
3.12	.49910	.00307	.02681	−.06450	.12080	3.12
3.13	.49913	.00298	.02617	−.06330	.11960	3.13
3.14	.49916	.00288	.02555	−.06211	.11838	3.14
3.15	.49918	.00279	.02493	−.06093	.11714	3.15
3.16	.49921	.00271	.02433	−.05977	.11588	3.16
3.17	.49924	.00262	.02374	−.05861	.11460	3.17
3.18	.49926	.00254	.02316	−.05747	.11330	3.18
3.19	.49929	.00246	.02259	−.05635	.11199	3.19
3.20	.49931	.00238	.02203	−.05523	.11066	3.20
3.21	.49934	.00231	.02148	−.05413	.10933	3.21
3.22	.49936	.00224	.02095	−.05305	.10798	3.22
3.23	.49938	.00216	.02042	−.05198	.10662	3.23
3.24	.49940	.00210	.01991	−.05092	.10525	3.24
3.25	.49942	.00203	.01940	−.04987	.10387	3.25
3.26	.49944	.00196	.01891	−.04884	.10249	3.26
3.27	.49946	.00190	.01843	−.04782	.10110	3.27
3.28	.49948	.00184	.01795	−.04682	.09970	3.28
3.29	.49950	.00178	.01749	−.04583	.09830	3.29
3.30	.49952	.00172	.01704	−.04485	.09690	3.30
3.31	.49953	.00167	.01659	−.04389	.09549	3.31
3.32	.49955	.00161	.01616	−.04294	.09409	3.32
3.33	.49957	.00156	.01573	−.04201	.09268	3.33
3.34	.49958	.00151	.01532	−.04109	.09128	3.34
3.35	.49960	.00146	.01491	−.04018	.08987	3.35
3.36	.49961	.00141	.01451	−.03929	.08847	3.36
3.37	.49962	.00136	.01413	−.03841	.08707	3.37
3.38	.49964	.00132	.01375	−.03755	.08567	3.38
3.39	.49965	.00127	.01338	−.03670	.08428	3.39
3.40	.49966	.00123	.01301	−.03586	.08290	3.40
3.41	.49968	.00119	.01266	−.03504	.08151	3.41
3.42	.49969	.00115	.01231	−.03423	.08014	3.42
3.43	.49970	.00111	.01197	−.03344	.07877	3.43
3.44	.49971	.00107	.01164	−.03266	.07741	3.44
3.45	.49972	.00104	.01132	−.03189	.07606	3.45
3.46	.49973	.00100	.01100	−.03114	.07471	3.46
3.47	.49974	.00097	.01070	−.03040	.07338	3.47
3.48	.49975	.00094	.01040	−.02967	.07205	3.48
3.49	.49976	.00090	.01010	−.02895	.07074	3.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
3.00	−.07977	−.42546	1.75501	−2.28683	3.00
3.01	−.08394	−.40802	1.73177	−2.35651	3.01
3.02	−.08793	−.39082	1.70790	−2.42208	3.02
3.03	−.09176	−.37387	1.68336	−2.48352	3.03
3.04	−.09541	−.35716	1.65824	−2.54093	3.04
3.05	−.09890	−.34070	1.63256	−2.59437	3.05
3.06	−.10223	−.32451	1.60636	−2.64391	3.06
3.07	−.10539	−.30858	1.57969	−2.68961	3.07
3.08	−.10840	−.29292	1.55258	−2.73154	3.08
3.09	−.11125	−.27753	1.52507	−2.76978	3.09
3.10	−.11395	−.26242	1.49720	−2.80441	3.10
3.11	−.11650	−.24759	1.46900	−2.83549	3.11
3.12	−.11890	−.23304	1.44050	−2.86310	3.12
3.13	−.12116	−.21878	1.41175	−2.88734	3.13
3.14	−.12328	−.20480	1.38277	−2.90826	3.14
3.15	−.12526	−.19112	1.35359	−2.92597	3.15
3.16	−.12710	−.17773	1.32426	−2.94053	3.16
3.17	−.12882	−.16464	1.29479	−2.95204	3.17
3.18	−.13040	−.15184	1.26523	−2.96057	3.18
3.19	−.13185	−.13933	1.23556	−2.96614	3.19
3.20	−.13319	−.12712	1.20591	−2.96905	3.20
3.21	−.13440	−.11521	1.17622	−2.96916	3.21
3.22	−.13549	−.10360	1.14654	−2.96665	3.22
3.23	−.13647	−.09228	1.11689	−2.96159	3.23
3.24	−.13734	−.08126	1.08731	−2.95406	3.24
3.25	−.13810	−.07054	1.05782	−2.94416	3.25
3.26	−.13875	−.06012	1.02844	−2.93197	3.26
3.27	−.13930	−.04997	0.99919	−2.91758	3.27
3.28	−.13975	−.04012	0.97009	−2.90106	3.28
3.29	−.14010	−.03056	0.94117	−2.88251	3.29
3.30	−.14036	−.02130	0.91245	−2.86201	3.30
3.31	−.14053	−.01232	0.88394	−2.83964	3.31
3.32	−.14061	−.00362	0.85568	−2.81552	3.32
3.33	−.14060	.00480	0.82764	−2.78962	3.33
3.34	−.14051	.01294	0.79988	−2.76214	3.34
3.35	−.14034	.02080	0.77240	−2.73312	3.35
3.36	−.14010	.02839	0.74522	−2.70263	3.36
3.37	−.13978	.03570	0.71835	−2.67076	3.37
3.38	−.13939	.04275	0.69181	−2.63758	3.38
3.39	−.13892	.04954	0.66560	−2.60318	3.39
3.40	−.13840	.05607	0.63975	−2.56761	3.40
3.41	−.13780	.06234	0.61425	−2.53096	3.41
3.42	−.13715	.06835	0.58913	−2.49330	3.42
3.43	−.13644	.07412	0.56439	−2.45470	3.43
3.44	−.13567	.07964	0.54004	−2.41524	3.44
3.45	−.13485	.08492	0.51609	−2.37497	3.45
3.46	−.13397	.08997	0.49254	−2.33396	3.46
3.47	−.13305	.09477	0.46941	−2.29228	3.47
3.48	−.13208	.09935	0.44670	−2.25000	3.48
3.49	−.13106	.10371	0.42441	−2.20718	3.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
3.50	.49977	.00087	.00982	−.02825	.06943	3.50
3.51	.49978	.00084	.00954	−.02757	.06814	3.51
3.52	.49978	.00081	.00927	−.02689	.06685	3.52
3.53	.49979	.00079	.00900	−.02623	.06558	3.53
3.54	.49980	.00076	.00874	−.02558	.06432	3.54
3.55	.49981	.00073	.00849	−.02494	.06308	3.55
3.56	.49981	.00071	.00824	−.02432	.06184	3.56
3.57	.49982	.00068	.00800	−.02370	.06062	3.57
3.58	.49983	.00066	.00777	−.02310	.05941	3.58
3.59	.49983	.00063	.00754	−.02252	.05821	3.59
3.60	.49984	.00061	.00732	−.02194	.05703	3.60
3.61	.49985	.00059	.00710	−.02138	.05586	3.61
3.62	.49985	.00057	.00689	−.02082	.05471	3.62
3.63	.49986	.00055	.00669	−.02028	.05357	3.63
3.64	.49986	.00053	.00649	−.01975	.05244	3.64
3.65	.49987	.00051	.00629	− 01923	.05133	3.65
3.66	.49987	.00049	.00610	−.01873	.05023	3.66
3.67	.49988	.00047	.00592	−.01823	.04915	3.67
3.68	.49988	.00046	.00574	−.01774	.04808	3.68
3.69	.49989	.00044	.00556	−.01727	.04703	3.69
3.70	.49989	.00042	.00539	−.01680	.04599	3.70
3.71	.49990	.00041	.00522	−.01635	.04497	3.71
3.72	.49990	.00039	.00506	−.01590	.04396	3.72
3.73	.49990	.00038	.00491	−.01547	.04297	3.73
3.74	.49991	.00037	.00475	−.01504	.04200	3.74
3.75	.49991	.00035	.00461	−.01463	.04103	3.75
3.76	.49992	.00034	.00446	−.01422	.04009	3.76
3.77	.49992	.00033	.00432	−.01383	.03916	3.77
3.78	.49992	.00031	.00419	−.01344	.03824	3.78
3.79	.49992	.00030	.00405	−.01306	.03734	3.79
3.80	.49993	.00029	.00392	−.01269	.03646	3.80
3.81	.49993	.00028	.00380	−.01233	.03559	3.81
3.82	.49993	.00027	.00368	−.01198	.03473	3.82
3.83	.49994	.00026	.00356	−.01164	.03389	3.83
3.84	.49994	.00025	.00344	−.01130	.03307	3.84
3 85	.49994	.00024	.00333	−.01098	.03226	3.85
3.86	.49994	.00023	.00322	−.01066	.03146	3.86
3.87	.49995	.00022	.00312	−.01035	.03068	3.87
3.88	.49995	.00021	.00302	−.01004	.02991	3.88
3.89	.49995	.00021	.00292	−.00975	.02916	3.89
3.90	.49995	.00020	.00282	−.00946	.02842	3.90
3.91	.49995	.00019	.00273	−.00918	.02770	3.91
3.92	.49996	.00018	.00264	−.00891	.02699	3.92
3.93	.49996	.00018	.00255	−.00864	.02630	3.93
3.94	.49996	.00017	.00247	−.00838	.02562	3.94
3.95	.49996	.00016	.00238	−.00813	.02495	3.95
3.96	.49996	.00016	.00230	−.00788	.02430	3.96
3.97	.49996	.00015	.00223	−.00764	.02366	3.97
3.98	.49997	.00014	.00215	−.00741	.02303	3.98
3.99	.49997	.00014	.00208	−.00718	.02242	3.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
3.50	−.13000	.10784	.40256	−2.16387	3.50
3.51	−.12890	.11176	.38114	−2.12013	3.51
3.52	−.12777	.11547	.36016	−2.07604	3.52
3.53	−.12660	.11897	.33962	−2.03163	3.53
3.54	−.12539	.12226	.31953	−1.98696	3.54
3.55	−.12415	.12536	.29988	−1.94209	3.55
3.56	−.12288	.12826	.28068	−1.89707	3.56
3.57	−.12159	.13097	.26194	−1.85194	3.57
3.58	−.12026	.13350	.24365	−1.80677	3.58
3.59	−.11892	.13585	.22580	−1.76158	3.59
3.60	−.11755	.13802	.20841	−1.71643	3.60
3.61	−.11616	.14002	.19148	−1.67136	3.61
3.62	−.11475	.14185	.17499	−1.62641	3.62
3.63	−.11332	.14352	.15895	−1.58162	3.63
3.64	−.11188	.14503	.14335	−1.53702	3.64
3.65	−.11042	.14639	.12821	−1.49267	3.65
3.66	−.10895	.14760	.11350	−1.44858	3.66
3.67	−.10747	.14866	.09923	−1.40480	3.67
3.68	−.10598	.14958	.08540	−1.36136	3.68
3.69	−.10448	.15037	.07200	−1.31828	3.69
3.70	−.10297	.15102	.05903	−1.27557	3.70
3.71	−.10146	.15155	.04649	−1.23334	3.71
3.72	−.09994	.15196	.03437	−1.19153	3.72
3.73	−.09842	.15224	.02266	−1.15020	3.73
3.74	−.09690	.15241	.01136	−1.10936	3.74
3.75	−.09537	.15247	.00047	−1.06904	3.75
3.76	−.09385	.15242	−.01002	−1.02926	3.76
3.77	−.09232	.15227	−.02012	−0.99004	3.77
3.78	−.09080	.15202	−.02982	−0.95140	3.78
3.79	−.08928	.15167	−.03915	−0.91335	3.79
3.80	−.08777	.15124	−.04809	−0.87591	3.80
3.81	−.08626	.15071	−.05667	−0.83909	3.81
3.82	−.08475	.15011	−.06488	−0.80291	3.82
3.83	−.08326	.14942	−.07273	−0.76737	3.83
3.84	−.08177	.14865	−.08023	−0.73250	3.84
3.85	−.08028	.14781	−.08738	−0.69828	3.85
3.86	−.07881	.14691	−.09419	−0.66475	3.86
3.87	−.07735	.14593	−.10068	−0.63190	3.87
3.88	−.07589	.14489	−.10684	−0.59973	3.88
3.89	−.07445	.14380	−.11267	−0.56827	3.89
3.90	−.07302	.14264	−.11820	−0.53750	3.90
3.91	−.07160	.14143	−.12343	−0.50743	3.91
3.92	−.07019	.14017	−.12835	−0.47807	3.92
3.93	−.06879	.13887	−.13299	−0.44941	3.93
3.94	−.06741	.13751	−.13734	−0.42147	3.94
3.95	−.06604	.13612	−.14142	−0.39422	3.95
3.96	−.06469	.13469	−.14523	−0.36769	3.96
3.97	−.06335	.13322	−.14878	−0.34187	3.97
3.98	−.06202	.13171	−.15207	−0.31674	3.98
3.99	−.06071	.13018	−.15512	−0.29232	3.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
4.00	.49997	.00013	.00201	−.00696	.02181	4.00
4.01	.49997	.00013	.00194	−.00674	.02123	4.01
4.02	.49997	.00012	.00187	−.00653	.02065	4.02
4.03	.49997	.00012	.00181	−.00633	.02009	4.03
4.04	.49997	.00011	.00175	−.00613	.01954	4.04
4.05	.49997	.00011	.00169	−.00594	.01900	4.05
4.06	.49998	.00011	.00163	−.00575	.01847	4.06
4.07	.49998	.00010	.00157	−.00557	.01796	4.07
4.08	.49998	.00010	.00152	−.00539	.01746	4.08
4.09	.49998	.00009	.00146	−.00522	.01697	4.09
4.10	.49998	.00009	.00141	−.00505	.01649	4.10
4.11	.49998	.00009	.00136	−.00489	.01602	4.11
4.12	.49998	.00008	.00131	−.00473	.01556	4.12
4.13	.49998	.00008	.00127	−.00458	.01512	4.13
4.14	.49998	.00008	.00122	−.00443	.01468	4.14
4.15	.49998	.00007	.00118	−.00429	.01425	4.15
4.16	.49998	.00007	.00114	−.00415	.01384	4.16
4.17	.49998	.00007	.00110	−.00401	.01344	4.17
4.18	.49999	.00006	.00106	−.00388	.01304	4.18
4.19	.49999	.00006	.00102	−.00375	.01266	4.19
4.20	.49999	.00006	.00098	−.00362	.01228	4.20
4.21	.49999	.00006	.00094	−.00350	.01191	4.21
4.22	.49999	.00005	.00091	−.00339	.01156	4.22
4.23	.49999	.00005	.00088	−.00327	.01121	4.23
4.24	.49999	.00005	.00085	−.00316	.01087	4.24
4.25	.49999	.00005	.00081	−.00305	.01054	4.25
4.26	.49999	.00005	.00078	−.00295	.01022	4.26
4.27	.49999	.00004	.00076	−.00285	.00991	4.27
4.28	.49999	.00004	.00073	−.00275	.00960	4.28
4.29	.49999	.00004	.00070	−.00266	.00930	4.29
4.30	.49999	.00004	.00067	−.00257	.00901	4.30
4.31	.49999	.00004	.00065	−.00248	.00873	4.31
4.32	.49999	.00004	.00062	−.00239	.00846	4.32
4.33	.49999	.00003	.00060	−.00231	.00819	4.33
4.34	.49999	.00003	.00058	−.00223	.00794	4.34
4.35	.49999	.00003	.00056	−.00215	.00768	4.35
4.36	.49999	.00003	.00054	−.00207	.00744	4.36
4.37	.49999	.00003	.00051	−.00200	.00720	4.37
4.38	.49999	.00003	.00050	−.00193	.00697	4.38
4.39	.49999	.00003	.00048	−.00186	.00674	4.39
4.40	.49999	.00002	.00046	−.00180	.00653	4.40
4.41	.49999	.00002	.00044	−.00173	.00631	4.41
4.42	.50000	.00002	.00042	−.00167	.00611	4.42
4.43	.50000	.00002	.00041	−.00161	.00591	4.43
4.44	.50000	.00002	.00039	−.00155	.00571	4.44
4.45	.50000	.00002	.00038	−.00149	.00552	4.45
4.46	.50000	.00002	.00036	−.00144	.00534	4.46
4.47	.50000	.00002	.00035	−.00139	.00516	4.47
4.48	.50000	.00002	.00033	−.00134	.00499	4.48
4.49	.50000	.00002	.00032	−.00129	.00482	4.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
4.00	−.05942	.12861	−.15792	−.26860	4.00
4.01	−.05814	.12702	−.16049	−.24557	4.01
4.02	−.05688	.12540	−.16283	−.22322	4.02
4.03	−.05563	.12376	−.16496	−.20156	4.03
4.04	−.05441	.12210	−.16687	−.18058	4.04
4.05	−.05319	.12043	−.16857	−.16027	4.05
4.06	−.05200	.11873	−.17007	−.14063	4.06
4.07	−.05082	.11703	−.17139	−.12164	4.07
4.08	−.04966	.11531	−.17251	−.10330	4.08
4.09	−.04851	.11358	−.17345	−.08560	4.09
4.10	−.04738	.11184	−.17422	−.06854	4.10
4.11	−.04628	.11009	−.17483	−.05211	4.11
4.12	−.04518	.10834	−.17527	−.03628	4.12
4.13	−.04411	.10659	−.17555	−.02107	4.13
4.14	−.04305	.10483	−.17569	−.00645	4.14
4.15	−.04201	.10307	−.17569	.00758	4.15
4.16	−.04099	.10132	−.17554	.02103	4.16
4.17	−.03999	.09956	−.17527	.03392	4.17
4.18	−.03900	.09781	−.17486	.04625	4.18
4.19	−.03803	.09607	−.17434	.05803	4.19
4.20	−.03708	.09433	−.17371	.06928	4.20
4.21	−.03613	.09256	−.17295	.08023	4.21
4.22	−.03523	.09087	−.17211	.09022	4.22
4.23	−.03433	.08915	−.17116	.09994	4.23
4.24	−.03344	.08744	−.17011	.10916	4.24
4.25	−.03258	.08575	−.16897	.11790	4.25
4.26	−.03172	.08407	−.16775	.12618	4.26
4.27	−.03089	.08239	−.16645	.13400	4.27
4.28	−.03008	.08074	−.16508	.14137	4.28
4.29	−.02928	.07909	−.16363	.14831	4.29
4.30	−.02850	.07746	−.16211	.15483	4.30
4.31	−.02773	.07585	−.16053	.16094	4.31
4.32	−.02698	.07425	−.15889	.16665	4.32
4.33	−.02625	.07267	−.15720	.17197	4.33
4.34	−.02553	.07111	−.15546	.17691	4.34
4.35	−.02482	.06956	−.15366	.18149	4.35
4.36	−.02414	.06804	−.15183	.18571	4.36
4.37	−.02346	.06653	−.14995	.18959	4.37
4.38	−.02280	.06504	−.14804	.19313	4.38
4.39	−.02216	.06357	−.14609	.19636	4.39
4.40	−.02153	.06212	−.14411	.19927	4.40
4.41	−.02092	.06068	−.14210	.20188	4.41
4.42	−.02032	.05927	−.14007	.20421	4.42
4.43	−.01973	.05788	−.13802	.20625	4.43
4.44	−.01916	.05651	−.13595	.20802	4.44
4.45	−.01860	.05516	−.13386	.20953	4.45
4.46	−.01806	.05384	−.13176	.21079	4.46
4.47	−.01753	.05253	−.12965	.21181	4.47
4.48	−.01701	.05124	−.12752	.21260	4.48
4.49	−.01650	.04998	−.12539	.21317	4.49

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\int_0^t \varphi(t)dt$	$\varphi(t)$	$\varphi^{(2)}(t)$	$\varphi^{(3)}(t)$	$\varphi^{(4)}(t)$	t
4.50	.50000	.00002	.00031	−.00124	.00466	4.50
4.51	.50000	.00002	.00030	−.00119	.00450	4.51
4.52	.50000	.00001	.00028	−.00115	.00435	4.52
4.53	50000	.00001	.00027	−.00111	.00420	4.53
4.54	.50000	.00001	.00026	−.00107	.00406	4.54
4.55	.50000	.00001	.00025	−.00103	.00392	4.55
4.56	.50000	.00001	.00024	−.00099	.00378	4.56
4.57	.50000	.00001	.00023	−.00095	.00365	4.57
4.58	.50000	00001	.00022	−.00092	.00353	4.58
4.59	.50000	.00001	.00021	−.00088	.00340	4.59
4.60	.50000	.00001	.00020	−.00085	.00328	4.60
4.61	.50000	.00001	.00020	−.00081	.00317	4.61
4.62	.50000	.00001	.00019	−.00078	.00306	4.62
4.63	.50000	.00001	.00018	−.00075	.00295	4.63
4.64	.50000	.00001	.00017	−.00072	.00284	4.64
4.65	.50000	.00001	.00017	−.00070	.00274	4.65
4.66	.50000	.00001	.00016	−.00067	.00264	4.66
4.67	.50000	.00001	.00015	−.00064	.00255	4.67
4.68	.50000	.00001	.00015	−.00062	.00246	4.68
4.69	.50000	.00001	.00014	−.00059	.00237	4.69
4.70	.50000	.00001	.00013	−.00057	.00228	4.70
4.71	.50000	.00001	.00013	−.00055	.00220	4.71
4.72	.50000	.00001	.00012	−.00053	.00212	4.72
4.73	.50000	.00001	.00012	−.00051	.00204	4.73
4.74	.50000	.00001	.00011	−.00049	.00197	4.74
4.75	.50000	.00001	.00011	−.00047	.00189	4.75
4.76	.50000	.00000	.00010	−.00045	.00182	4.76
4.77	.50000	.00000	.00010	−.00043	.00176	4.77
4.78	.50000	.00000	.00010	−.00041	.00169	4.78
4.79	.50000	.00000	.00009	−.00040	.00163	4.79
4.80	.50000	.00000	.00009	−.00038	.00157	4.80
4.81	.50000	.00000	.00008	−.00037	.00151	4.81
4.82	.50000	.00000	.00008	−.00035	.00145	4.82
4.83	.50000	.00000	.00008	−.00034	.00140	4.83
4.84	.50000	.00000	.00007	−.00032	.00134	4.84
4.85	.50000	.00000	.00007	−.00031	.00129	4.85
4.86	.50000	.00000	.00007	−.00030	.00124	4.86
4.87	.50000	.00000	.00006	−.00028	.00120	4.87
4.88	.50000	.00000	.00006	−.00027	.00115	4.88
4.89	.50000	.00000	.00006	−.00026	.00110	4.89
4.90	.50000	.00000	.00006	−.00025	.00106	4.90
4.91	.50000	.00000	.00005	−.00024	.00102	4.91
4.92	.50000	.00000	.00005	−.00023	.00098	4.92
4.93	.50000	.00000	.00005	−.00022	.00094	4.93
4.94	.50000	.00000	.00005	−.00021	.00091	4.94
4.95	.50000	.00000	.00004	−.00020	.00087	4.95
4.96	.50000	.00000	.00004	−.00019	.00084	4.96
4.97	.50000	.00000	.00004	−.00019	.00080	4.97
4.98	.50000	.00000	.00004	−.00018	.00077	4.98
4.99	.50000	.00000	.00004	−.00017	.00074	4.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\right]$$

Areas, Ordinates, and Second to Eighth Derivatives of the Normal Curve of Error, $y = \varphi(t) = \frac{1}{\sqrt{2\pi}} e^{-t^2/2}$

t	$\varphi^{(5)}(t)$	$\varphi^{(6)}(t)$	$\varphi^{(7)}(t)$	$\varphi^{(8)}(t)$	t
4.50	−.01601	.04874	−.12326	.21353	4.50
4.51	−.01553	.04751	−.12113	.21368	4.51
4.52	−.01506	.04631	−.11899	.21364	4.52
4.53	−.01460	.04513	−.11685	.21341	4.53
4.54	−.01416	.04398	−.11472	.21300	4.54
4.55	−.01372	.04284	−.11259	.21242	4.55
4.56	−.01330	.04172	−.11047	.21169	4.56
4.57	−.01289	.04063	−.10836	.21080	4.57
4.58	−.01249	.03956	−.10626	.20976	4.58
4.59	−.01210	.03850	−.10417	.20859	4.59
4.60	−.01171	.03747	−.10207	.20725	4.60
4.61	−.01135	.03646	−.10002	.20585	4.61
4.62	−.01099	.03547	−.09797	.20431	4.62
4.63	−.01064	.03450	−.09593	.20265	4.63
4.64	−.01030	.03355	−.09392	.20089	4.64
4.65	−.00997	.03263	−.09192	.19904	4.65
4.66	−.00964	.03172	−.08994	.19709	4.66
4.67	−.00933	.03083	−.08798	.19506	4.67
4.68	−.00903	.02996	−.08604	.19295	4.68
4.69	−.00873	.02911	−.08412	.19077	4.69
4.70	−.00844	.02827	−.08222	.18852	4.70
4.71	−.00817	.02746	−.08035	.18620	4.71
4.72	−.00790	.02667	−.07850	.18383	4.72
4.73	−.00763	.02589	−.07667	.18141	4.73
4.74	−.00738	.02513	−.07487	.17894	4.74
4.75	−.00713	.02439	−.07310	.17643	4.75
4.76	−.00689	.02367	−.07134	.17388	4.76
4.77	−.00666	.02297	−.06961	.17129	4.77
4.78	−.00643	.02228	−.06791	.16867	4.78
4.79	−.00621	.02161	−.06624	.16603	4.79
4.80	−.00600	.02095	−.06458	.16334	4.80
4.81	−.00579	.02032	−.06297	.16069	4.81
4.82	−.00559	.01969	−.06138	.15799	4.82
4.83	−.00540	.01909	−.05981	.15528	4.83
4.84	−.00521	.01850	−.05827	.15256	4.84
4.85	−.00503	.01792	−.05676	.14983	4.85
4.86	−.00485	.01736	−.05528	.14711	4.86
4.87	−.00468	.01682	−.05382	.14438	4.87
4.88	−.00451	.01629	−.05239	.14166	4.88
4.89	−.00435	.01577	−.05099	.13894	4.89
4.90	−.00420	.01527	−.04961	.13623	4.90
4.91	−.00405	.01478	−.04826	.13353	4.91
4.92	−.00390	.01430	−.04694	.13084	4.92
4.93	−.00376	.01384	−.04565	.12816	4.93
4.94	−.00363	.01339	−.04438	.12551	4.94
4.95	−.00350	.01295	−.04314	.12286	4.95
4.96	−.00337	.01253	−.04192	.12024	4.96
4.97	−.00324	.01211	−.04073	.11764	4.97
4.98	−.00313	.01171	−.03957	.11506	4.98
4.99	−.00301	.01132	−.03843	.11251	4.99

$$F(t) = \frac{N}{\sigma}\left[\varphi(t) + A_3\varphi^{(3)}(t) + A_4\varphi^{(4)}(t) + A_5\varphi^{(5)}(t) + \cdots\cdots\right]$$

Newton's Binomial Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B} = \Delta^2 u_0$		$\mathrm{C} = \Delta^3 u_0$		$\mathrm{D} = \Delta^4 u_0$		$\mathrm{E} = \Delta^5 u_0$		x
	$b = \frac{x(x-1)}{2}$		$c = \frac{x(x-1)(x-2)}{6}$		$d = \frac{x(x-1)\ldots(x-3)}{24}$		$e = \frac{x(x-1)\ldots(x-4)}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.00	.00000	−495	.00000	328	.00000	−245	.00000	196	.00
.01	−.00495	−485	.00328	319	−.00245	−237	.00196	188	.01
.02	−.00980	−475	.00647	308	−.00482	−227	.00384	179	.02
.03	−.01455	−465	.00955	299	−.00709	−219	.00563	172	.03
.04	−.01920	−455	.01254	290	−.00928	−211	.00735	164	.04
.05	−.02375	−445	.01544	280	−.01139	−201	.00899	157	.05
.06	−.02820	−435	.01824	270	−.01340	−194	.01056	150	.06
.07	−.03255	−425	.02094	261	−.01534	−185	.01206	142	.07
.08	−.03680	−415	.02355	252	−.01719	−178	.01348	135	.08
.09	−.04095	−405	.02607	243	−.01897	−169	.01483	129	.09
.10	−.04500	−395	.02850	234	−.02066	−162	.01612	121	.10
.11	−.04895	−385	.03084	225	−.02228	−154	.01733	116	.11
.12	−.05280	−375	.03309	216	−.02382	−147	.01849	109	.12
.13	−.05655	−365	.03525	207	−.02529	−140	.01958	102	.13
.14	−.06020	−355	.03732	199	−.02669	−132	.02060	97	.14
.15	−.06375	−345	.03931	191	−.02801	−125	.02157	90	.15
.16	−.06720	−335	.04122	182	−.02926	−119	.02247	85	.16
.17	−.07055	−325	.04304	173	−.03045	−111	.02332	80	.17
.18	−.07380	−315	.04477	166	−.03156	−105	.02412	73	.18
.19	−.07695	−305	.04643	157	−.03261	−99	.02485	69	.19
.20	−.08000	−295	.04800	149	−.03360	−92	.02554	63	.20
.21	−.08295	−285	.04949	142	−.03452	−86	.02617	58	.21
.22	−.08580	−275	.05091	133	−.03538	−80	.02675	53	.22
.23	−.08855	−265	.05224	126	−.03618	−74	.02728	48	.23
.24	−.09120	−255	.05350	119	−.03692	−68	.02776	44	.24
.25	−.09375	−245	.05469	111	−.03760	−62	.02820	39	.25
.26	−.09620	−235	.05580	103	−.03822	−57	.02859	34	.26
.27	−.09855	−225	.05683	96	−.03879	−51	.02893	31	.27
.28	−.10080	−215	.05779	89	−.03930	−46	.02924	26	.28
.29	−.10295	−205	.05868	82	−.03976	−40	.02950	22	.29
.30	−.10500	−195	.05950	75	−.04016	−36	.02972	18	.30
.31	−.10695	−185	.06025	68	−.04052	−30	.02990	14	.31
.32	−.10880	−175	.06093	61	−.04082	−26	.03004	11	.32
.33	−.11055	−165	.06154	54	−.04108	−21	.03015	7	.33
.34	−.11220	−155	.06208	48	−.04129	−16	.03022	4	.34
.35	−.11375	−145	.06256	42	−.04145	−11	.03026	0	.35
.36	−.11520	−135	.06298	35	−.04156	−8	.03026	−3	.36
.37	−.11655	−125	.06333	28	−.04164	−3	.03023	−6	.37
.38	−.11780	−115	.06361	23	−.04167	2	.03017	−10	.38
.39	−.11895	−105	.06384	16	−.04165	5	.03007	−12	.39
.40	−.12000	−95	.06400	10	−.04160	9	.02995	−15	.40
.41	−.12095	−85	.06410	5	−.04151	13	.02980	−18	.41
.42	−.12180	−75	.06415	−2	−.04138	17	.02962	−20	.42
.43	−.12255	−65	.06413	−7	−.04121	21	.02942	−23	.43
.44	−.12320	−55	.06406	−12	−.04100	24	.02919	−25	.44
.45	−.12375	−45	.06394	−18	−.04076	27	.02894	−28	.45
.46	−.12420	−35	.06376	−24	−.04049	31	.02866	−30	.46
.47	−.12455	−25	.06352	−29	−.04018	34	.02836	−32	.47
.48	−.12480	−15	.06323	−34	−.03984	38	.02804	−34	.48
.49	−.12495	−5	.06289	−39	−.03946	40	.02770	−36	.49
.50	−.12500	5	.06250	−44	−.03906	43	.02734	−38	.50

$d = \frac{x(x-1)(x-2)(x-3)}{24}$

$e = \frac{x(x-1)(x-2)(x-3)(x-4)}{120}$

Newton's Binomial Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B} = \Delta^2 u_0$		$\mathrm{C} = \Delta^3 u_0$		$\mathrm{D} = \Delta^4 u_0$		$\mathrm{E} = \Delta^5 u_0$		x
	$b = \frac{x(x-1)}{2}$		$c = \frac{x(x-1)(x-2)}{6}$		$d = \frac{x(x-1)..(x-3)}{24}$		$e = \frac{x(x-1).\,(x-4)}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.50	−.12500	5	.06250	−44	−.03906	43	.02734	−38	.50
.51	−.12495	15	.06206	−49	−.03863	46	.02696	−39	.51
.52	−.12480	25	.06157	−54	−.03817	48	.02657	−42	.52
.53	−.12455	35	.06103	−59	−.03769	52	.02615	−43	.53
.54	−.12420	45	.06044	−63	−.03717	53	.02572	−44	.54
.55	−.12375	55	.05981	−67	−.03664	57	.02528	−46	.55
.56	−.12320	65	.05914	−72	−.03607	58	.02482	−48	.56
.57	−.12255	75	.05842	−77	−.03549	61	.02434	−48	.57
.58	−.12180	85	.05765	−80	−.03488	63	.02386	−50	.58
.59	−.12095	95	.05685	−85	−.03425	65	.02336	−51	.59
.60	−.12000	105	.05600	−89	−.03360	67	.02285	−52	.60
.61	−.11895	115	.05511	−92	−.03293	69	.02233	−53	.61
.62	−.11780	125	.05419	−97	−.03224	70	.02180	−55	.62
.63	−.11655	135	.05322	−100	−.03154	73	.02125	−54	.63
.64	−.11520	145	.05222	−103	−.03081	74	.02071	−56	.64
.65	−.11375	155	.05119	−107	−.03007	75	.02015	−57	.65
.66	−.11220	165	.05012	−111	−.02932	77	.01958	−57	.66
.67	−.11055	175	.04901	−114	−.02855	78	.01901	−57	.67
.68	−.10880	185	.04787	−117	−.02777	80	.01844	−59	.68
.69	−.10695	195	.04670	−120	−.02697	81	.01785	−58	.69
.70	−.10500	205	.04550	−123	−.02616	82	.01727	−59	.70
.71	−.10295	215	.04427	−126	−.02534	83	.01668	−60	.71
.72	−.10080	225	.04301	−129	−.02451	83	.01608	−60	.72
.73	−.09855	235	.04172	−132	−.02368	85	.01548	−60	.73
.74	−.09620	245	.04040	−134	−.02283	86	.01488	−60	.74
.75	−.09375	255	.03906	−136	−.02197	86	.01428	−60	.75
.76	−.09120	265	.03770	−139	−.02111	87	.01368	−60	.76
.77	−.08855	275	.03631	−142	−.02024	87	.01308	−61	.77
.78	−.08580	285	.03489	−143	−.01937	89	.01247	−60	.78
.79	−.08295	295	.03346	−146	−.01848	88	.01187	−61	.79
.80	−.08000	305	.03200	−148	−.01760	89	.01126	−60	.80
.81	−.07695	315	.03052	−149	−.01671	89	.01066	−60	.81
.82	−.07380	325	.02903	−152	−.01582	89	.01006	−60	.82
.83	−.07055	335	.02751	−153	−.01493	90	.00946	−59	.83
.84	−.06720	345	.02598	−154	−.01403	89	.00887	−59	.84
.85	−.06375	355	.02444	−156	−.01314	90	.00828	−59	.85
.86	−.06020	365	.02288	−158	−.01224	90	.00769	−59	.86
.87	−.05655	375	.02130	−159	−.01134	89	.00710	−58	.87
.88	−.05280	385	.01971	−160	−.01045	90	.00652	−58	.88
.89	−.04895	395	.01811	−161	−.00955	89	.00594	−57	.89
.90	−.04500	405	.01650	−162	−.00866	89	.00537	−57	.90
.91	−.04095	415	.01488	−163	−.00777	88	.00480	−56	.91
.92	−.03680	425	.01325	−164	−.00689	88	.00424	−55	.92
.93	−.03255	435	.01161	−165	−.00601	88	.00369	−55	.93
.94	−.02820	445	.00996	−165	−.00513	87	.00314	−54	.94
.95	−.02375	455	.00831	−165	−.00426	87	.00260	−54	.95
.96	−.01920	465	.00666	−166	−.00339	85	.00206	−52	.96
.97	−.01455	475	.00500	−167	−.00254	86	.00154	−52	.97
.98	−.00980	485	.00333	−166	−.00168	84	.00102	−52	.98
.99	−.00495	495	.00167	−167	−.00084	84	.00050	−50	.99
1.00	.00000		.00000		.00000		.00000		1.00

$d = \frac{x(x-1)(x-2)(x-3)}{24}$

$e = \frac{x(x-1)(x-2)(x-3)(x-4)}{120}$

Stirling's Central Difference Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x(\Delta u_{-1} + \Delta u_0)/2 + bB + cC + dD + eE$$

x	$B = \Delta^2 u_{-1}$		$C = (\Delta^3 u_{-2} + \Delta^3 u_{-1})/2$		$D = \Delta^4 u_{-2}$		$E = (\Delta^5 u_{-3} + \Delta^5 u_{-2})/2$		x
	$b = \frac{x^2}{2}$		$c = \frac{x(x^2-1)}{6}$		$d = \frac{x^2(x^2-1)}{24}$		$e = \frac{x(x^2-1)(x^2-4)}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.00	.00000	5	.00000	−167	.00000	0	.00000	33	.00
.01	.00005	15	−.00167	−166	.00000	−2	.00033	34	.01
.02	.00020	25	−.00333	−167	−.00002	−2	.00067	33	.02
.03	.00045	35	−.00500	−166	−.00004	−3	.00100	33	.03
.04	.00080	45	−.00666	−165	−.00007	−3	.00133	33	.04
.05	.00125	55	−.00831	−165	−.00010	−5	.00166	33	.05
.06	.00180	65	−.00996	−165	−.00015	−5	.00199	33	.06
.07	.00245	75	−.01161	−164	−.00020	−6	.00232	33	.07
.08	.00320	85	−.01325	−163	−.00026	−7	.00265	32	.08
.09	.00405	95	−.01488	−162	−.00033	−8	.00297	32	.09
.10	.00500	105	−.01650	−161	−.00041	−9	.00329	32	.10
.11	.00605	115	−.01811	−160	−.00050	−9	.00361	32	.11
.12	.00720	125	−.01971	−159	−.00059	−10	.00393	31	.12
.13	.00845	135	−.02130	−158	−.00069	−11	.00424	31	.13
.14	.00980	145	−.02288	−156	−.00080	−12	.00455	31	.14
.15	.01125	155	−.02444	−154	−.00092	−12	.00486	30	.15
.16	.01280	165	−.02598	−153	−.00104	−13	.00516	30	.16
.17	.01445	175	−.02751	−152	−.00117	−14	.00546	30	.17
.18	.01620	185	−.02903	−149	−.00131	−14	.00576	29	.18
.19	.01805	195	−.03052	−148	−.00145	−15	.00605	29	.19
.20	.02000	205	−.03200	−146	−.00160	−16	.00634	28	.20
.21	.02205	215	−.03346	−143	−.00176	−16	.00662	27	.21
.22	.02420	225	−.03489	−142	−.00192	−17	.00689	28	.22
.23	.02645	235	−.03631	−139	−.00209	−17	.00717	26	.23
.24	.02880	245	−.03770	−136	−.00226	−18	.00743	26	.24
.25	.03125	255	−.03906	−134	−.00244	−19	.00769	25	.25
.26	.03380	265	−.04040	−132	−.00263	−19	.00794	25	.26
.27	.03645	275	−.04172	−129	−.00282	−19	.00819	24	.27
.28	.03920	285	−.04301	−126	−.00301	−20	.00843	24	.28
.29	.04205	295	−.04427	−123	−.00321	−20	.00867	23	.29
.30	.04500	305	−.04550	−120	−.00341	−21	.00890	22	.30
.31	.04805	315	−.04670	−117	−.00362	−21	.00912	21	.31
.32	.05120	325	−.04787	−114	−.00383	−21	.00933	21	.32
.33	.05445	335	−.04901	−111	−.00404	−22	.00954	19	.33
.34	.05780	345	−.05012	−107	−.00426	−22	.00973	19	.34
.35	.06125	355	−.05119	−103	−.00448	−22	.00992	19	.35
.36	.06480	365	−.05222	−100	−.00470	−22	.01011	17	.36
.37	.06845	375	−.05322	−97	−.00492	−23	.01028	17	.37
.38	.07220	385	−.05419	−92	−.00515	−22	.01045	15	.38
.39	.07605	395	−.05511	−89	−.00537	−23	.01060	15	.39
.40	.08000	405	−.05600	−85	−.00560	−23	.01075	14	.40
.41	.08405	415	−.05685	−80	−.00583	−22	.01089	13	.41
.42	.08820	425	−.05765	−77	−.00605	−23	.01102	12	.42
.43	.09245	435	−.05842	−72	−.00628	−22	.01114	11	.43
.44	.09680	445	−.05914	−67	−.00650	−23	.01125	11	.44
.45	.10125	455	−.05981	−63	−.00673	−22	.01136	9	.45
.46	.10580	465	−.06044	−59	−.00695	−22	.01145	8	.46
.47	.11045	475	−.06103	−54	−.00717	−22	.01153	7	.47
.48	.11520	485	−.06157	−49	−.00739	−21	.01160	7	.48
.49	.12005	495	−.06206	−44	−.00760	−21	.01167	5	.49
.50	.12500	505	−.06250	−39	−.00781	−21	.01172	4	.50

Stirling's Central Difference Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x(\Delta u_{-1} + \Delta u_0)/2 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B} = \Delta^2 u_{-1}$		$\mathrm{C} = (\Delta^3 u_{-2} + \Delta^3 u_{-1})/2$		$\mathrm{D} = \Delta^4 u_{-2}$		$\mathrm{E} = (\Delta^5 u_{-3} + \Delta^5 u_{-2})/2$		x
	$b = \frac{x^2}{2}$		$c = \frac{x(x^2-1)}{6}$		$d = \frac{x^2(x^2-1)}{24}$		$e = \frac{x(x^2-1)(x^2-4)}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.50	.12500	505	−.06250	−39	−.00781	−21	.01172	4	.50
.51	.13005	515	−.06289	−34	−.00802	−20	.01176	3	.51
.52	.13520	525	−.06323	−29	−.00822	−20	.01179	2	.52
.53	.14045	535	−.06352	−24	−.00842	−19	.01181	1	.53
.54	.14580	545	−.06376	−18	−.00861	−18	.01182	0	.54
.55	.15125	555	−.06394	−12	−.00879	−18	.01182	−1	.55
.56	.15680	565	−.06406	−7	−.00897	−17	.01181	−2	.56
.57	.16245	575	−.06413	−2	−.00914	−16	.01179	−4	.57
.58	.16820	585	−.06415	5	−.00930	−16	.01175	−5	.58
.59	.17405	595	−.06410	10	−.00946	−14	.01170	−5	.59
.60	.18000	605	−.06400	16	−.00960	−14	.01165	−7	.60
.61	.18605	615	−.06384	23	−.00974	−12	.01158	−8	.61
.62	.19220	625	−.06361	28	−.00986	−11	.01150	−9	.62
.63	.19845	635	−.06333	35	−.00997	−11	.01141	−10	.63
.64	.20480	645	−.06298	42	−.01008	−9	.01131	−12	.64
.65	.21125	655	−.06256	48	−.01017	−7	.01119	−13	.65
.66	.21780	665	−.06208	54	−.01024	−7	.01106	−13	.66
.67	.22445	675	−.06154	61	−.01031	−5	.01093	−15	.67
.68	.23120	685	−.06093	68	−.01036	−3	.01078	−16	.68
.69	.23805	695	−.06025	75	−.01039	−2	.01062	−18	.69
.70	.24500	705	−.05950	82	−.01041	−1	.01044	−18	.70
.71	.25205	715	−.05868	89	−.01042	2	.01026	−20	.71
.72	.25920	725	−.05779	96	−.01040	3	.01006	−21	.72
.73	.26645	735	−.05683	103	−.01037	5	.00985	−22	.73
.74	.27380	745	−.05580	111	−.01032	7	.00963	−23	.74
.75	.28125	755	−.05469	119	−.01025	8	.00940	−24	.75
.76	.28880	765	−.05350	126	−.01017	11	.00916	−26	.76
.77	.29645	775	−.05224	133	−.01006	13	.00890	−27	.77
.78	.30420	785	−.05091	142	−.00993	16	.00863	−28	.78
.79	.31205	795	−.04949	149	−.00977	17	.00835	−29	.79
.80	.32000	805	−.04800	157	−.00960	20	.00806	−30	.80
.81	.32805	815	−.04643	166	−.00940	22	.00776	−31	.81
.82	.33620	825	−.04477	173	−.00918	25	.00745	−33	.82
.83	.34445	835	−.04304	182	−.00893	27	.00712	−33	.83
.84	.35280	845	−.04122	191	−.00866	31	.00679	−35	.84
.85	.36125	855	−.03931	199	−.00835	33	.00644	−36	.85
.86	.36980	865	−.03732	207	−.00802	35	.00608	−36	.86
.87	.37845	875	−.03525	216	−.00767	39	.00572	−38	.87
.88	.38720	885	−.03309	225	−.00728	42	.00534	−39	.88
.89	.39605	895	−.03084	234	−.00686	45	.00495	−40	.89
.90	.40500	905	−.02850	243	−.00641	48	.00455	−42	.90
.91	.41405	915	−.02607	252	−.00593	51	.00413	−42	.91
.92	.42320	925	−.02355	261	−.00542	55	.00371	−43	.92
.93	.43245	935	−.02094	270	−.00487	58	.00328	−44	.93
.94	.44180	945	−.01824	280	−.00429	62	.00284	−45	.94
.95	.45125	955	−.01544	290	−.00367	66	.00239	−46	.95
.96	.46080	965	−.01254	299	−.00301	69	.00193	−47	.96
.97	.47045	975	−.00955	308	−.00232	74	.00146	−48	.97
.98	.48020	985	−.00647	319	−.00158	77	.00098	−48	.98
.99	.49005	995	−.00328	328	−.00081	81	.00050	−50	.99
1.00	.50000		.00000		.00000		.00000		1.00

Bessel's Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B}=(\Delta^2 u_{-1}+\Delta^2 u_0)/2$		$\mathrm{C}=\Delta^3 u_{-1}$		$\mathrm{D}=(\Delta^4 u_{-2}+\Delta^4 u_{-1})/2$		$\mathrm{E}=\Delta^5 u_{-2}$		x
	$b=\frac{x(x-1)}{2}$		$c=\frac{x(x-1)(x-\frac{1}{2})}{6}$		$d=\frac{x(x^2-1)(x-2)}{24}$		$e=\frac{x(x^2-1)\ldots(x-\frac{1}{2})}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.00	.00000	−495	.00000	81	.00000	83	.00000	−8	.00
.01	−.00495	−485	.00081	76	.00083	82	−.00008	−8	.01
.02	−.00980	−475	.00157	71	.00165	81	−.00016	−7	.02
.03	−.01455	−465	.00228	66	.00246	80	−.00023	−7	.03
.04	−.01920	−455	.00294	62	.00326	79	−.00030	−6	.04
.05	−.02375	−445	.00356	58	.00405	78	−.00036	−7	.05
.06	−.02820	−435	.00414	53	.00483	77	−.00043	−5	.06
.07	−.03255	−425	.00467	48	.00560	76	−.00048	−5	.07
.08	−.03680	−415	.00515	45	.00636	74	−.00053	−5	.08
.09	−.04095	−405	.00560	40	.00710	74	−.00058	−5	.09
.10	−.04500	−395	.00600	36	.00784	72	−.00063	−4	.10
.11	−.04895	−385	.00636	33	.00856	70	−.00067	−3	.11
.12	−.05280	−375	.00669	28	.00926	70	−.00070	−4	.12
.13	−.05655	−365	.00697	25	.00996	68	−.00074	−3	.13
.14	−.06020	−355	.00722	22	.01064	66	−.00077	−2	.14
.15	−.06375	−345	.00744	18	.01130	65	−.00079	−2	.15
.16	−.06720	−335	.00762	14	.01195	64	−.00081	−2	.16
.17	−.07055	−325	.00776	11	.01259	62	−.00083	−2	.17
.18	−.07380	−315	.00787	8	.01321	60	−.00085	−1	.18
.19	−.07695	−305	.00795	5	.01381	59	−.00086	0	.19
.20	−.08000	−295	.00800	2	.01440	57	−.00086	−1	.20
.21	−.08295	−285	.00802	−1	.01497	56	−.00087	0	.21
.22	−.08580	−275	.00801	−4	.01553	54	−.00087	0	.22
.23	−.08855	−265	.00797	−7	.01607	52	−.00087	1	.23
.24	−.09120	−255	.00790	−9	.01659	50	−.00086	1	.24
.25	−.09375	−245	.00781	−11	.01709	49	−.00085	1	.25
.26	−.09620	−235	.00770	−14	.01758	46	−.00084	1	.26
.27	−.09855	−225	.00756	−17	.01804	45	−.00083	2	.27
.28	−.10080	−215	.00739	−18	.01849	43	−.00081	2	.28
.29	−.10295	−205	.00721	−21	.01892	42	−.00079	2	.29
.30	−.10500	−195	.00700	−23	.01934	39	−.00077	2	.30
.31	−.10695	−185	.00677	−24	.01973	38	−.00075	3	.31
.32	−.10880	−175	.00654	−27	.02011	35	−.00072	2	.32
.33	−.11055	−165	.00626	−28	.02046	34	−.00070	3	.33
.34	−.11220	−155	.00598	−29	.02080	31	−.00067	4	.34
.35	−.11375	−145	.00569	−31	.02111	30	−.00063	3	.35
.36	−.11520	−135	.00538	−33	.02141	28	−.00060	4	.36
.37	−.11655	−125	.00505	−34	.02169	26	−.00056	3	.37
.38	−.11780	−115	.00471	−35	.02195	23	−.00053	4	.38
.39	−.11895	−105	.00436	−36	.02218	22	−.00049	4	.39
.40	−.12000	−95	.00400	−37	.02240	20	−.00045	4	.40
.41	−.12095	−85	.00363	−38	.02260	17	−.00041	5	.41
.42	−.12180	−75	.00325	−39	.02277	16	−.00036	4	.42
.43	−.12255	−65	.00286	−40	.02293	13	−.00032	4	.43
.44	−.12320	−55	.00246	−40	.02306	12	−.00028	5	.44
.45	−.12375	−45	.00206	−40	.02318	9	−.00023	4	.45
.46	−.12420	−35	.00166	−41	.02327	7	−.00019	5	.46
.47	−.12455	−25	.00125	−42	.02334	6	−.00014	5	.47
.48	−.12480	−15	.00083	−41	.02340	3	−.00009	4	.48
.49	−.12495	−5	.00042	−42	.02343	1	−.00005	5	.49
.50	−.12500	5	.00000	−42	.02344	−1	.00000	5	.50

$$e=\frac{x(x^2-1)(x-2)(x-\frac{1}{2})}{120}$$

Bessel's Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B}=(\Delta^2 u_{-1}+\Delta^2 u_0)/2$		$\mathrm{C}=\Delta^3 u_{-1}$		$\mathrm{D}=(\Delta^4 u_{-2}+\Delta^4 u_{-1})/2$		$\mathrm{E}=\Delta^5 u_{-2}$		x
	$b=\frac{x(x-1)}{2}$		$c=\frac{x(x-1)(x-\frac{1}{2})}{6}$		$d=\frac{x(x^2-1)(x-2)}{24}$		$e=\frac{x(x^2-1)\ldots(x-\frac{1}{2})}{120}$		
	b	Δb	c	Δc	d	Δd	e	Δe	
.50	−.12500	5	.00000	−42	.02344	−1	.00000	5	.50
.51	−.12495	15	−.00042	−41	.02343	−3	.00005	4	.51
.52	−.12480	25	−.00083	−42	.02340	−6	.00009	5	.52
.53	−.12455	35	−.00125	−41	.02334	−7	.00014	5	.53
.54	−.12420	45	−.00166	−40	.02327	−9	.00019	4	.54
.55	−.12375	55	−.00206	−40	.02318	−12	.00023	5	.55
.56	−.12320	65	−.00246	−40	.02306	−13	.00028	4	.56
.57	−.12255	75	−.00286	−39	.02293	−16	.00032	4	.57
.58	−.12180	85	−.00325	−38	.02277	−17	.00036	5	.58
.59	−.12095	95	−.00363	−37	.02260	−20	.00041	4	.59
.60	−.12000	105	−.00400	−36	.02240	−22	.00045	4	.60
.61	−.11895	115	−.00436	−35	.02218	−23	.00049	4	.61
.62	−.11780	125	−.00471	−34	.02195	−26	.00053	3	.62
.63	−.11655	135	−.00505	−33	.02169	−28	.00056	4	.63
.64	−.11520	145	−.00538	−31	.02141	−30	.00060	3	.64
.65	−.11375	155	−.00569	−29	.02111	−31	.00063	4	.65
.66	−.11220	165	−.00598	−28	.02080	−34	.00067	3	.66
.67	−.11055	175	−.00626	−27	.02046	−35	.00070	2	.67
.68	−.10880	185	−.00653	−24	.02011	−38	.00072	3	.68
.69	−.10695	195	−.00677	−23	.01973	−39	.00075	2	.69
.70	−.10500	205	−.00700	−21	.01934	−42	.00077	2	.70
.71	−.10295	215	−.00721	−18	.01892	−43	.00079	2	.71
.72	−.10080	225	−.00739	−17	.01849	−45	.00081	2	.72
.73	−.09855	235	−.00756	−14	.01804	−46	.00083	1	.73
.74	−.09620	245	−.00770	−11	.01758	−49	.00084	1	.74
.75	−.09375	255	−.00781	−9	.01709	−50	.00085	1	.75
.76	−.09120	265	−.00790	−7	.01659	−52	.00086	1	.76
.77	−.08855	275	−.00797	−4	.01607	−54	.00087	0	.77
.78	−.08580	285	−.00801	−1	.01553	−56	.00087	0	.78
.79	−.08295	295	−.00802	2	.01497	−57	.00087	−1	.79
.80	−.08000	305	−.00800	5	.01440	−59	.00086	0	.80
.81	−.07695	315	−.00795	8	.01381	−60	.00086	−1	.81
.82	−.07380	325	−.00787	11	.01321	−62	.00085	−2	.82
.83	−.07055	335	−.00776	14	.01259	−64	.00083	−2	.83
.84	−.06720	345	−.00762	18	.01195	−65	.00081	−2	.84
.85	−.06375	355	−.00744	22	.01130	−66	.00079	−2	.85
.86	−.06020	365	−.00722	25	.01064	−68	.00077	−3	.86
.87	−.05655	375	−.00697	28	.00996	−70	.00074	−4	.87
.88	−.05280	385	−.00669	33	.00926	−70	.00070	−3	.88
.89	−.04895	395	−.00636	36	.00856	−72	.00067	−4	.89
.90	−.04500	405	−.00600	40	.00784	−74	.00063	−5	.90
.91	−.04095	415	−.00560	45	.00710	−74	.00058	−5	.91
.92	−.03680	425	−.00515	48	.00636	−76	.00053	−5	.92
.93	−.03255	435	−.00467	53	.00560	−77	.00048	−5	.93
.94	−.02820	445	−.00414	58	.00483	−78	.00043	−7	.94
.95	−.02375	455	−.00356	62	.00405	−79	.00036	−6	.95
.96	−.01920	465	−.00294	66	.00326	−80	.00030	−7	.96
.97	−.01455	475	−.00228	71	.00246	−81	.00023	−7	.97
.98	−.00980	485	−.00157	76	.00165	−82	.00016	−8	.98
.99	−.00495	495	−.00081	81	.00083	−83	.00008	−8	.99
1.00	.00000		.00000		.00000		.00000		1.00

$e=\frac{x(x^2-1)(x-2)(x-\frac{1}{2})}{120}$

Everett's Central Difference Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\,\Delta u_0 + a\,\Delta^2 u_0 + b\,\Delta^2 u_{-1} + c\,\Delta^4 u_{-1} + d\,\Delta^4 u_{-2} + e\,\Delta^6 u_{-2} + f\Delta^6 u_{-3}$$

x	$b = p(\xi)$, $\xi = 1 - x$		$d = q(\xi)$, $\xi = 1 - x$		$f = r(\xi)$, $\xi = 1 - x$		x
	$p(x) = \frac{x(x^2-1)}{6}$		$q(x) = \frac{x(x^2-1)(x^2-4)}{120}$		$r(x) = \frac{x(x^2-1)(x^2-4)(x^2-9)}{5040}$		
	$a = p(x)$	$\Delta p(x)$	$c = q(x)$	$\Delta q(x)$	$e = r(x)$	$\Delta r(x)$	
.00	.00000	−167	.00000	33	.00000	−7	.00
.01	−.00167	−166	.00033	34	−.00007	−7	.01
.02	−.00333	−167	.00067	33	−.00014	−7	.02
.03	−.00500	−166	.00100	33	−.00021	−8	.03
.04	−.00666	−165	.00133	33	−.00029	−7	.04
.05	−.00831	−165	.00166	33	−.00036	−7	.05
.06	−.00996	−165	.00199	33	−.00043	−7	.06
.07	−.01161	−164	.00232	33	−.00050	−7	.07
.08	−.01325	−163	00265	32	− 00057	−7	08
09	− 01488	−162	.00297	32	−.00064	−6	.09
.10	−.01650	−161	.00329	32	−.00070	−7	.10
.11	−.01811	−160	.00361	32	−.00077	−7	.11
.12	−.01971	−159	.00393	31	−.00084	−7	.12
.13	−.02130	−158	.00424	31	−.00091	−6	.13
.14	−.02288	−156	.00455	31	−.00097	−7	.14
.15	−.02444	−154	.00486	30	−.00104	−6	.15
.16	−.02598	−153	.00516	30	−.00110	−7	.16
.17	−.02751	−152	.00546	30	−.00117	−6	.17
.18	−.02903	−149	.00576	29	−.00123	−6	.18
.19	−.03052	−148	.00605	29	−.00129	−6	.19
.20	−.03200	−146	.00634	28	−.00135	−6	.20
.21	−.03346	−143	.00662	27	−.00141	−6	.21
.22	−.03489	−142	.00689	28	−.00147	−6	.22
.23	−.03631	−139	.00717	26	−.00153	−5	.23
.24	−.03770	−136	.00743	26	−.00158	−6	.24
.25	−.03906	−134	.00769	25	−.00164	−5	.25
.26	−.04040	−132	.00794	25	−.00169	−5	.26
.27	−.04172	−129	.00819	24	−.00174	−5	.27
.28	−.04301	−126	.00843	24	−.00179	−5	.28
.29	−.04427	−123	.00867	23	−.00184	−5	.29
.30	−.04550	−120	.00890	22	−.00189	−4	.30
.31	−.04670	−117	.00912	21	−.00193	−5	.31
.32	−.04787	−114	.00933	21	−.00198	−4	.32
.33	−.04901	−111	.00954	19	−.00202	−4	.33
.34	−.05012	−107	.00973	19	−.00206	−4	.34
.35	−.05119	−103	.00992	19	−.00210	−3	.35
.36	−.05222	−100	.01011	17	−.00213	−4	.36
.37	−.05322	−97	.01028	17	−.00217	−3	.37
.38	−.05419	−92	.01045	15	−.00220	−3	.38
.39	−.05511	−89	.01060	15	−.00223	−3	.39
.40	−.05600	−85	.01075	14	−.00226	−3	.40
.41	−.05685	−80	.01089	13	−.00229	−3	.41
.42	−.05765	−77	.01102	12	−.00232	−2	.42
.43	−.05842	−72	.01114	11	−.00234	−2	.43
.44	−.05914	−67	.01125	11	−.00236	−2	.44
.45	−.05981	−63	.01136	9	−.00238	−2	.45
.46	−.06044	−59	.01145	8	−.00240	−1	.46
.47	−.06103	−54	.01153	7	−.00241	−1	.47
.48	−.06157	−49	.01160	7	−.00242	−1	.48
.49	−.06206	−44	.01167	5	−.00243	−1	.49
.50	−.06250	−39	.01172	4	−.00244	−1	.50

Everett's Central Difference Interpolation Coefficients for Computing the Function

$$u_x = u_0 + x\,\Delta u_0 + a\,\Delta^2 u_0 + b\,\Delta^2 u_{-1} + c\,\Delta^4 u_{-1} + d\,\Delta^4 u_{-2} + e\,\Delta^6 u_{-2} + f\,\Delta^6 u_{-3}$$

x	$b = p(\xi),\ \xi = 1 - x$		$d = q(\xi),\ \xi = 1 - x$		$f = r(\xi),\ \xi = 1 - x$		x
	$p(x) = \frac{x(x^2-1)}{6}$		$q(x) = \frac{x(x^2-1)(x^2-4)}{120}$		$r(x) = \frac{x(x^2-1)(x^2-4)(x^2-9)}{5040}$		
	$a = p(x)$	$\Delta p(x)$	$c = q(x)$	$\Delta q(x)$	$e = r(x)$	$\Delta r(x)$	
.50	−.06250	−39	.01172	4	−.00244	−1	.50
.51	−.06289	−34	.01176	3	−.00245	0	.51
.52	−.06323	−29	.01179	2	−.00245	0	.52
.53	−.06352	−24	.01181	1	−.00245	0	.53
.54	−.06376	−18	.01182	0	−.00245	0	.54
.55	−.06394	−12	.01182	−1	−.00245	1	.55
.56	−.06406	−7	.01181	−2	−.00244	1	.56
.57	−.06413	−2	.01179	−4	−.00243	1	.57
.58	−.06415	5	.01175	−5	−.00242	1	.58
.59	−.06410	10	.01170	−5	−.00241	1	.59
.60	−.06400	16	.01165	−7	−.00240	2	.60
.61	−.06384	23	.01158	−8	−.00238	2	.61
.62	−.06361	28	.01150	−9	−.00236	2	.62
.63	−.06333	35	.01141	−10	−.00234	3	.63
.64	−.06298	42	.01131	−12	−.00231	2	.64
.65	−.06256	48	.01119	−13	−.00229	3	.65
.66	−.06208	54	.01106	−13	−.00226	4	.66
.67	−.06154	61	.01093	−15	−.00222	3	.67
.68	−.06093	68	.01078	−16	−.00219	4	68
.69	−.06025	75	.01062	−18	−.00215	3	.69
.70	−.05950	82	.01044	18	−.00212	5	.70
.71	−.05868	89	.01026	−20	−.00207	4	.71
.72	−.05779	96	.01006	−21	−.00203	4	.72
.73	−.05683	103	.00985	−22	−.00199	5	.73
.74	−.05580	111	.00963	−23	−.00194	5	.74
.75	−.05469	119	.00940	−24	−.00189	5	.75
.76	−.05350	126	.00916	−26	−.00184	6	.76
.77	−.05224	133	.00890	−27	−.00178	6	.77
.78	−.05091	142	.00863	−28	−.00172	5	.78
.79	−.04949	149	.00835	−29	−.00167	6	.79
.80	−.04800	157	.00806	−30	−.00161	7	.80
.81	−.04643	166	.00776	−31	−.00154	6	.81
.82	−.04477	173	.00745	−33	−.00148	7	.82
.83	−.04304	182	.00712	−33	−.00141	7	.83
.84	−.04122	191	.00679	−35	−.00134	7	.84
.85	−.03931	199	.00644	−36	−.00127	7	85
.86	−.03732	207	.00608	−36	−.00120	8	.86
.87	−.03525	216	.00572	−38	−.00112	7	.87
.88	−.03309	225	.00534	−39	−.00105	8	.88
.89	−.03084	234	.00495	−40	−.00097	8	.89
.90	−.02850	243	.00455	−42	−.00089	9	.90
.91	−.02607	252	.00413	−42	−.00080	8	.91
.92	−.02355	261	.00371	−43	−.00072	8	.92
.93	−.02094	270	.00328	−44	−.00064	9	.93
.94	−.01824	280	.00284	−45	−.00055	9	.94
.95	−.01544	290	.00239	−46	−.00046	9	.95
.96	−.01254	299	.00193	−47	−.00037	9	.96
.97	−.00955	308	.00146	−48	−.00028	9	.97
.98	−.00647	319	.00098	−48	−.00019	10	.98
.99	−.00328	328	.00050	−50	−.00009	9	.99
1.00	.00000		.00000		.00000		1.00

Newton's Binomial Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B} = \Delta^2 u_0$	$\mathrm{C} = \Delta^3 u_0$		$\mathrm{D} = \Delta^4 u_0$		$\mathrm{E} = \Delta^5 u_0$		x
	$b = x - \frac{1}{2}$	$c = \frac{x^2}{2} - x + \frac{1}{3}$		$d = \frac{x^3}{6} - \frac{3x^2}{4} + \frac{11x}{12} - \frac{1}{4}$		$e = \frac{x^4}{24} - \frac{x^3}{3} + \frac{7x^2}{8} - \frac{5x}{6} + \frac{1}{5}$		
	b	c	Δc	d	Δd	e	Δe	
.00	−.50	.33333	−995	−.25000	909	.20000	−825	.00
.01	−.49	.32338	−985	−.24091	894	.19175	−807	.01
.02	−.48	.31353	−975	−.23197	880	.18368	−790	.02
.03	−.47	.30378	−965	−.22317	865	.17578	−773	.03
.04	−.46	.29413	−955	−.21452	850	.16805	−757	.04
.05	−.45	.28458	−945	−.20602	836	.16048	−740	.05
.06	−.44	.27513	−935	−.19766	821	.15308	−724	.06
.07	−.43	.26578	−925	−.18945	807	.14584	−708	.07
.08	−.42	.25653	−915	−.18138	793	.13876	−691	.08
.09	−.41	.24738	−905	−.17345	778	.13185	−676	.09
.10	−.40	.23833	−895	−.16567	765	.12509	−661	.10
.11	−.39	.22938	−885	−.15802	751	.11848	−645	.11
.12	−.38	.22053	−875	−.15051	737	.11203	−630	.12
.13	−.37	.21178	−865	−.14314	723	.10573	−615	.13
.14	−.36	.20313	−855	−.13591	710	.09958	−600	.14
.15	−.35	.19458	−845	−.12881	696	.09358	−585	.15
.16	−.34	.18613	−835	−.12185	683	.08773	−571	.16
.17	−.33	.17778	−825	−.11502	669	.08202	−557	.17
.18	−.32	16953	−815	−.10833	656	.07645	−543	.18
.19	−.31	16138	−805	− 10177	644	.07102	−529	.19
.20	−.30	.15333	−795	−.09533	630	.06573	−515	.20
.21	−.29	.14538	−785	−.08903	617	.06058	−502	.21
.22	−.28	.13753	−775	−.08286	605	.05556	−488	.22
23	−.27	.12978	−765	−.07681	591	.05068	−475	.23
24	−.26	.12213	−755	−.07090	580	.04593	−462	.24
.25	−.25	.11458	−745	−.06510	566	.04131	−449	.25
.26	−.24	.10713	−735	−.05944	555	.03682	−437	.26
27	− 23	.09978	−725	−.05389	542	.03245	−424	.27
.28	−.22	.09253	−715	−.04847	529	.02821	−412	.28
.29	−.21	.08538	−705	−.04318	518	.02409	−400	.29
.30	−.20	.07833	−695	−.03800	506	.02009	−388	.30
.31	−.19	.07138	−685	−.03294	493	.01621	−376	.31
.32	−.18	.06453	−675	−.02801	482	.01245	−365	.32
.33	−.17	.05778	−665	−.02319	471	.00880	−353	.33
.34	−.16	.05113	−655	−.01848	458	.00527	−342	.34
.35	−.15	04458	−645	−.01390	448	.00185	−330	.35
.36	−.14	.03813	−635	−.00942	435	−.00145	−320	.36
.37	−.13	.03178	−625	−.00507	425	−.00465	−309	.37
.38	−.12	.02553	−615	−.00082	413	−.00774	−298	.38
.39	−.11	.01938	−605	.00331	402	−.01072	−288	.39
.40	−.10	.01333	−595	.00733	392	−.01360	−278	.40
.41	−.09	.00738	−585	.01125	380	−.01638	−267	.41
.42	−.08	.00153	−575	.01505	369	−.01905	−257	.42
.43	−.07	−.00422	−565	.01874	359	−.02162	−248	.43
.44	−.06	−.00987	−555	.02233	348	−.02410	−238	.44
.45	−.05	−.01542	−545	.02581	338	−.02648	−228	.45
.46	−.04	−.02087	−535	.02919	327	−.02876	−219	.46
.47	−.03	−.02622	−525	.03246	317	−.03095	−210	.47
.48	−.02	−.03147	−515	.03563	307	−.03305	−201	.48
.49	−.01	−.03662	−505	.03870	297	−.03506	−192	.49
.50	.00	−.04167	−495	.04167	286	−.03698	−183	.50

Newton's Binomial Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	$\mathrm{B} = \Delta^2 u_0$	$\mathrm{C} = \Delta^3 u_0$		$\mathrm{D} = \Delta^4 u_0$		$\mathrm{E} = \Delta^5 u_0$		x
	$b = x - \frac{1}{2}$	$c = \frac{x^2}{2} - x + \frac{1}{3}$		$d = \frac{x^3}{6} - \frac{3x^2}{4} + \frac{11x}{12} - \frac{1}{4}$		$e = \frac{x^4}{24} - \frac{x^3}{3} + \frac{7x^2}{8} - \frac{5x}{6} + \frac{1}{5}$		
	b	c	Δc	d	Δd	e	Δe	
.50	.00	−.04167	−495	.04167	286	−.03698	−183	.50
.51	.01	−.04662	−485	.04453	277	−.03881	−175	.51
.52	.02	−.05147	−475	.04730	267	−.04056	−166	.52
.53	.03	−.05622	−465	.04997	257	−.04222	−158	.53
.54	.04	−.06087	−455	.05254	248	−.04380	−149	.54
.55	.05	−.06542	−445	.05502	238	−.04529	−142	.55
.56	.06	−.06987	−435	.05740	229	−.04671	−134	.56
.57	.07	−.07422	−425	.05969	220	−.04805	−126	.57
.58	.08	−.07847	−415	.06189	210	−.04931	−118	.58
.59	.09	−.08262	−405	.06399	201	−.05049	−111	.59
.60	.10	−.08667	−395	.06600	192	−.05160	−104	.60
.61	.11	−.09062	−385	.06792	183	−.05264	−96	.61
.62	.12	−.09447	−375	.06975	175	−.05360	−90	.62
.63	.13	−.09822	−365	.07150	166	−.05450	−82	.63
.64	.14	−.10187	−355	.07316	157	−.05532	−76	.64
.65	.15	−.10542	−345	.07473	149	−.05608	−70	.65
.66	.16	−.10887	−335	.07622	140	−.05678	−62	.66
.67	.17	−.11222	−325	.07762	132	−.05740	−57	.67
.68	.18	−.11547	−315	.07894	124	−.05797	−50	.68
.69	.19	−.11862	−305	.08018	115	−.05847	−44	.69
.70	.20	−.12167	−295	.08133	108	−.05891	−38	.70
.71	.21	−.12462	−285	.08241	100	−.05929	−33	.71
.72	.22	−.12747	−275	.08341	92	−.05962	−27	.72
.73	.23	−.13022	−265	.08433	84	−.05989	−21	.73
.74	.24	−.13287	−255	.08517	77	−.06010	−15	.74
.75	.25	−.13542	−245	.08594	69	−.06025	−11	.75
.76	.26	−.13787	−235	.08663	62	−.06036	−5	.76
.77	.27	−.14022	−225	.08725	54	−.06041	0	.77
.78	.28	−.14247	−215	.08779	47	−.06041	5	.78
.79	.29	−.14462	−205	.08826	41	−.06036	9	.79
.80	.30	−.14667	−195	.08867	33	−.06027	15	.80
.81	.31	−.14862	−185	.08900	26	−.06012	19	.81
.82	.32	−.15047	−175	.08926	20	−.05993	23	.82
.83	.33	−.15222	−165	.08946	12	−.05970	28	.83
.84	.34	−.15387	−155	.08958	7	−.05942	32	.84
.85	.35	−.15542	−145	.08965	−1	−.05910	36	.85
.86	.36	−.15687	−135	.08964	−6	−.05874	40	.86
.87	.37	−.15822	−125	.08958	−13	−.05834	44	.87
.88	.38	−.15947	−115	.08945	−20	−.05790	47	.88
.89	.39	−.16062	−105	.08925	−25	−.05743	52	.89
.90	.40	−.16167	−95	.08900	−31	−.05691	55	.90
.91	.41	−.16262	−85	.08869	−38	−.05636	58	.91
.92	.42	−.16347	−75	.08831	−43	−.05578	62	.92
.93	.43	−.16422	−65	.08788	−48	−.05516	65	.93
.94	.44	−.16487	−55	.08740	−55	−.05451	68	.94
.95	.45	−.16542	−45	.08685	−59	−.05383	71	.95
.96	.46	−.16587	−35	.08626	−66	−.05312	74	.96
.97	.47	−.16622	−25	.08560	−70	−.05238	76	.97
.98	.48	−.16647	−15	.08490	−76	−.05162	80	.98
.99	.49	−.16662	−5	.08414	−81	−.05082	82	.99
1.00	.50	−.16667		.08333		−.05000		1.00

Stirling's Central Difference Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = (\Delta u_{-1} + \Delta u_0)/2 + bB + cC + dD + eE$$

x	$B = \Delta^2 u_{-1}$	$C = (\Delta^3 u_{-2} + \Delta^3 u_{-1})/2$		$D = \Delta^4 u_{-2}$		$E = (\Delta^5 u_{-3} + \Delta^5 u_{-2})/2$		x
	$b = x$	$c = \frac{x^2}{2} - \frac{1}{6}$		$d = \frac{x^3}{6} - \frac{x}{12}$		$e = \frac{x^4}{24} - \frac{x^2}{8} + \frac{1}{30}$		
	b	c	Δc	d	Δd	e	Δe	
.00	.00	−.16667	5	.00000	−83	.03333	−1	.00
.01	.01	−.16662	15	−.00083	−84	.03332	−4	.01
.02	.02	−.16647	25	−.00167	−83	.03328	−6	.02
.03	.03	−.16622	35	−.00250	−82	.03322	−9	.03
.04	.04	−.16587	45	−.00332	−83	.03313	−11	.04
.05	.05	−.16542	55	−.00415	−81	.03302	−14	.05
.06	.06	−.16487	65	−.00496	−82	.03288	−16	.06
.07	.07	−.16422	75	−.00578	−80	.03272	−18	.07
.08	.08	−.16347	85	−.00658	−80	.03254	−22	.08
.09	.09	−.16262	95	−.00738	−79	.03232	−23	.09
.10	.10	−.16167	105	−.00817	−77	.03209	−26	.10
.11	.11	−.16062	115	−.00894	−77	.03183	−29	.11
.12	.12	−.15947	125	−.00971	−76	.03154	−31	.12
.13	.13	−.15822	135	−.01047	−74	.03123	−33	.13
.14	.14	−.15687	145	−.01121	−73	.03090	−36	.14
.15	.15	−.15542	155	−.01194	−71	.03054	−38	.15
.16	.16	−.15387	165	−.01265	−70	.03016	−40	.16
.17	.17	−.15222	175	−.01335	−68	.02976	−43	.17
.18	.18	−.15047	185	−.01403	−66	.02933	−45	.18
.19	.19	−.14862	195	−.01469	−64	.02888	−48	.19
.20	.20	−.14667	205	−.01533	−63	.02840	−50	.20
.21	.21	−.14462	215	−.01596	−60	.02790	−52	.21
.22	.22	−.14247	225	−.01656	−58	.02738	−54	.22
.23	.23	−.14022	235	−.01714	−56	.02684	−57	.23
.24	.24	−.13787	245	−.01770	−53	.02627	−59	.24
.25	.25	−.13542	255	−.01823	−51	.02568	−61	.25
.26	.26	−.13287	265	−.01874	−48	.02507	−63	.26
.27	.27	−.13022	275	−.01922	−45	.02444	−65	.27
.28	.28	−.12747	285	−.01967	−43	.02379	−67	.28
.29	.29	−.12462	295	−.02010	−40	.02312	−70	.29
.30	.30	−.12167	305	−.02050	−37	.02242	−71	.30
.31	.31	−.11862	315	−.02087	−34	.02171	−74	.31
.32	.32	−.11547	325	−.02121	−30	.02097	−76	.32
.33	.33	−.11222	335	−.02151	−27	.02021	−77	.33
.34	.34	−.10887	345	−.02178	−24	.01944	−79	.34
.35	.35	−.10542	355	−.02202	−20	.01865	−82	.35
.36	.36	−.10187	365	−.02222	−17	.01783	−83	.36
.37	.37	−.09822	375	−.02239	−13	.01700	−85	.37
.38	.38	−.09447	385	−.02252	−9	.01615	−87	.38
.39	.39	−.09062	395	−.02261	−6	.01528	−88	.39
.40	.40	−.08667	405	−.02267	−1	.01440	−90	.40
.41	.41	−.08262	415	−.02268	3	.01350	−92	.41
.42	.42	−.07847	425	−.02265	7	.01258	−93	.42
.43	.43	−.07422	435	−.02258	11	.01165	−95	.43
.44	.44	−.06987	445	−.02247	16	.01070	−97	.44
.45	.45	−.06542	455	−.02231	20	.00973	−98	.45
.46	.46	−.06087	465	−.02211	25	.00875	−100	.46
.47	.47	−.05622	475	−.02186	29	.00775	−100	.47
.48	.48	−.05147	485	−.02157	34	.00675	−103	.48
.49	.49	−.04662	495	−.02123	40	.00572	−103	.49
.50	.50	−.04167	505	−.02083	44	.00469	−105	.50

Stirling's Central Difference Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = (\Delta u_{-1} + \Delta u_0)/2 + bB + cC + dD + eE$$

x	$B = \Delta^2 u_{-1}$	$C = (\Delta^3 u_{-2} + \Delta^3 u_{-1})/2$		$D = \Delta^4 u_{-2}$		$E = (\Delta^5 u_{-3} + \Delta^5 u_{-2})/2$		x
	$b = x$	$c = \frac{x^2}{2} - \frac{1}{6}$		$d = \frac{x^3}{6} - \frac{x}{12}$		$e = \frac{x^4}{24} - \frac{x^2}{8} + \frac{1}{30}$		
	b	c	Δc	d	Δd	e	Δe	
.50	.50	−.04167	505	−.02083	44	.00469	−105	.50
.51	.51	−.03662	515	−.02039	49	.00364	−106	.51
.52	.52	−.03147	525	−.01990	55	.00258	−107	.52
.53	.53	−.02622	535	−.01935	59	.00151	−108	.53
.54	.54	−.02087	545	−.01876	66	.00043	−110	.54
.55	.55	−.01542	555	−.01810	70	−.00067	−110	.55
.56	.56	−.00987	565	−.01740	77	−.00177	−111	.56
.57	.57	−.00422	575	−.01663	82	−.00288	−112	.57
.58	.58	.00153	585	−.01581	87	−.00400	−113	.58
.59	.59	.00738	595	−.01494	94	−.00513	−114	.59
.60	.60	.01333	605	−.01400	100	−.00627	−114	.60
.61	.61	.01938	615	−.01300	105	−.00741	−115	.61
.62	.62	.02553	625	−.01195	112	−.00856	−116	.62
.63	.63	.03178	635	−.01083	119	−.00972	−116	.63
.64	.64	.03813	645	−.00964	124	−.01088	−116	.64
.65	.65	.04458	655	−.00840	132	−.01204	−117	.65
.66	.66	.05113	665	−.00708	137	−.01321	−117	.66
.67	.67	.05778	675	−.00571	145	−.01438	−118	.67
.68	.68	.06453	685	−.00426	151	−.01556	−117	.68
.69	.69	.07138	695	−.00275	158	−.01673	−118	.69
.70	.70	.07833	705	−.00117	166	−.01791	−118	.70
.71	.71	.08538	715	.00049	172	−.01909	−118	.71
.72	.72	.09253	725	.00221	179	−.02027	−118	.72
.73	.73	.09978	735	.00400	187	−.02145	−117	.73
.74	.74	.10713	745	.00587	194	−.02262	−118	.74
.75	.75	.11458	755	.00781	202	−.02380	−117	.75
.76	.76	.12213	765	.00983	209	−.02497	−116	.76
.77	.77	.12978	775	.01192	217	−.02613	−116	.77
.78	.78	.13753	785	.01409	225	−.02729	−116	.78
.79	.79	.14538	795	.01634	233	−.02845	−115	.79
.80	.80	.15333	805	.01867	240	−.02960	−114	.80
.81	.81	.16138	815	.02107	249	−.03074	−114	.81
.82	.82	.16953	825	.02356	257	−.03188	−112	.82
.83	.83	.17778	835	.02613	265	−.03300	−112	.83
.84	.84	.18613	845	.02878	274	−.03412	−111	.84
.85	.85	.19458	855	.03152	282	−.03523	−109	.85
.86	.86	.20313	865	.03434	291	−.03632	−109	.86
.87	.87	.21178	875	.03725	300	−.03741	−107	.87
.88	.88	.22053	885	.04025	308	−.03848	−106	.88
.89	.89	.22938	895	.04333	317	−.03954	−104	.89
.90	.90	.23833	905	.04650	326	−.04058	−103	.90
.91	.91	.24738	915	.04976	335	−.04161	−101	.91
.92	.92	.25653	925	.05311	345	−.04262	−99	.92
.93	.93	.26578	935	.05656	354	−.04361	−98	.93
.94	.94	.27513	945	.06010	363	−.04459	−95	.94
.95	.95	.28458	955	.06373	373	−.04554	−94	.95
.96	.96	.29413	965	.06746	382	−.04648	−91	.96
.97	.97	.30378	975	.07128	392	−.04739	−89	.97
.98	.98	.31353	985	.07520	402	−.04828	−87	.98
.99	.99	.32338	995	.07922	411	−.04915	−85	.99
1.00	1.00	.33333		.08333		−.05000		1.00

Bessel's Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + bB + cC + dD + eE$$

x	B	C = $\Delta^3 u_{-1}$		D = $(\Delta^4 u_{-2} + \Delta^4 u_{-1})/2$		E = $\Delta^5 u_{-2}$		x
	$b = x - \frac{1}{2}$	$c = \frac{x^2}{2} - \frac{x}{2} + \frac{1}{12}$		$d = \frac{x^3}{6} - \frac{x^2}{4} - \frac{x}{12} + \frac{1}{12}$		$e = \frac{x^4}{24} - \frac{x^3}{12} + \frac{x}{24} - \frac{1}{120}$		
	b	c	Δc	d	Δd	e	Δe	
.00	−.50	.08333	−495	.08333	−85	−.00833	41	.00
.01	−.49	.07838	−485	.08248	−91	−.00792	42	.01
.02	−.48	.07353	−475	.08157	−96	−.00750	41	.02
.03	−.47	.06878	−465	.08061	−100	−.00709	42	.03
.04	−.46	.06413	−455	.07961	−105	− 00667	41	.04
.05	−.45	.05958	−445	.07856	−109	−.00626	41	.05
.06	−.44	.05513	−435	.07747	−114	−.00585	41	.06
.07	−.43	.05078	−425	.07633	−118	−.00544	40	.07
.08	−.42	.04653	−415	.07515	−122	−.00504	40	.08
.09	−.41	04238	−405	07393	−126	−.00464	39	.09
.10	−.40	03833	−395	.07267	−131	−.00425	40	.10
.11	−.39	.03438	−385	.07136	−134	−.00385	38	.11
.12	−.38	.03053	−375	.07002	−138	−.00347	38	.12
.13	−.37	.02678	−365	.06864	−142	−.00309	38	.13
.14	−.36	.02313	−355	.06722	−145	−.00271	37	.14
.15	−.35	.01958	−345	.06577	−149	−.00234	36	.15
.16	−.34	.01613	−335	.06428	−152	−.00198	36	.16
.17	−.33	.01278	−325	.06276	−155	−.00162	34	.17
.18	−.32	.00953	−315	.06121	−159	−.00128	35	.18
.19	−.31	.00638	−305	.05962	−162	−.00093	33	.19
.20	−.30	.00333	−295	.05800	−165	−.00060	33	.20
.21	−.29	.00038	−285	.05635	−168	−.00027	31	.21
.22	−.28	−.00247	−275	.05467	−170	.00004	31	.22
.23	−.27	−.00522	−265	.05297	−173	.00035	30	.23
.24	−.26	−.00787	−255	.05124	−176	.00065	29	.24
.25	− 25	−.01042	−245	.04948	−178	.00094	29	.25
.26	−.24	−.01287	−235	.04770	−181	.00123	27	.26
.27	−.23	−.01522	−225	.04589	−183	.00150	26	.27
.28	−.22	−.01747	−215	.04406	−185	.00176	25	.28
.29	−.21	−.01962	−205	.04221	−188	.00201	24	.29
.30	−.20	−.02167	−195	.04033	−189	.00225	24	.30
.31	−.19	−.02362	−185	.03844	−191	.00249	22	.31
.32	−.18	−.02547	−175	.03653	−193	.00271	21	.32
.33	−.17	−.02722	−165	.03460	−195	.00292	19	.33
.34	−.16	−.02887	−155	.03265	−196	.00311	19	.34
.35	−.15	−.03042	−145	.03069	−198	.00330	18	.35
.36	−.14	−.03187	−135	.02871	−199	.00348	16	.36
.37	−.13	−.03322	−125	.02672	−201	.00364	16	.37
.38	−.12	−.03447	−115	.02471	−202	.00380	14	.38
.39	−.11	−.03562	−105	.02269	−202	.00394	13	.39
.40	−.10	−.03667	−95	.02067	−204	.00407	11	.40
41	−.09	−.03762	−85	.01863	−205	.00418	11	.41
.42	−.08	−.03847	−75	.01658	−205	.00429	9	.42
.43	−.07	−.03922	−65	.01453	−207	.00438	8	.43
.44	−.06	−.03987	−55	.01246	−206	.00446	7	.44
.45	−.05	−.04042	−45	.01040	−208	.00453	6	.45
.46	−.04	−.04087	−35	.00832	−207	.00459	4	.46
.47	−.03	−.04122	−25	.00625	−208	.00463	3	.47
.48	−.02	−.04147	−15	.00417	−209	.00466	2	.48
.49	−.01	−.04162	−5	.00208	−208	.00468	1	.49
.50	.00	−.04167	5	.00000	−208	.00469	−1	.50

$B = (\Delta^2 u_{-1} + \Delta^2 u_0)/2$

Bessel's Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + b\mathrm{B} + c\mathrm{C} + d\mathrm{D} + e\mathrm{E}$$

x	B	$\mathrm{C} = \Delta^3 u_{-1}$		$\mathrm{D} = (\Delta^4 u_{-2} + \Delta^4 u_{-1})/2$		$\mathrm{E} = \Delta^5 u_{-2}$		x
	$b = x - \frac{1}{2}$	$c = \frac{x^2}{2} - \frac{x}{2} + \frac{1}{12}$		$d = \frac{x^3}{6} - \frac{x^2}{4} - \frac{x}{12} + \frac{1}{12}$		$e = \frac{x^4}{24} - \frac{x^3}{12} + \frac{x}{24} - \frac{1}{120}$		
	b	c	Δc	d	Δd	e	Δe	
.50	.00	−.04167	5	−.00000	−208	.00469	−1	.50
.51	.01	−.04162	15	−.00208	−209	.00468	−2	.51
.52	.02	−.04147	25	−.00417	−208	.00466	−3	.52
.53	.03	−.04122	35	−.00625	−207	.00463	−4	.53
.54	.04	−.04087	45	−.00832	−208	.00459	−6	.54
.55	.05	−.04042	55	−.01040	−206	.00453	−7	.55
.56	.06	−.03987	65	−.01246	−207	.00446	−8	.56
.57	.07	−.03922	75	−.01453	−205	.00438	−9	.57
.58	.08	−.03847	85	−.01658	−205	.00429	−11	.58
.59	.09	−.03762	95	−.01863	−204	.00418	−11	.59
.60	.10	−.03667	105	−.02067	−202	.00407	−13	.60
.61	.11	−.03562	115	−.02269	−202	.00394	−14	.61
.62	.12	−.03447	125	−.02471	−201	.00380	−16	.62
.63	.13	−.03322	135	−.02672	−199	.00364	−16	.63
.64	.14	−.03187	145	−.02871	−198	.00348	−18	.64
.65	.15	−.03042	155	−.03069	−196	.00330	−19	.65
.66	.16	−.02887	165	−.03265	−195	.00311	−19	.66
.67	.17	−.02722	175	−.03460	−193	.00292	−21	.67
.68	.18	−.02547	185	−.03653	−191	.00271	−22	.68
.69	.19	−.02362	195	−.03844	−189	.00249	−24	.69
.70	.20	−.02167	205	−.04033	−188	.00225	−24	.70
.71	.21	−.01962	215	−.04221	−185	.00201	−25	.71
.72	.22	−.01747	225	−.04406	−183	.00176	−26	.72
.73	.23	−.01522	235	−.04589	−181	.00150	−27	.73
.74	.24	−.01287	245	−.04770	−178	.00123	−29	.74
.75	.25	−.01042	255	−.04948	−176	.00094	−29	.75
.76	.26	−.00787	265	−.05124	−173	.00065	−30	.76
.77	.27	−.00522	275	−.05297	−170	.00035	−31	.77
.77	.28	−.00247	285	−.05467	−168	.00004	−31	.78
.79	.29	.00038	295	−.05635	−165	−.00027	−33	.79
.80	.30	.00333	305	−.05800	−162	−.00060	−33	.80
.81	.31	.00638	315	−.05962	−159	− 00093	−35	.81
.82	.32	.00953	325	−.06121	−155	−.00128	−34	.82
.83	.33	.01278	335	−.06276	−152	−.00162	−36	.83
.84	.34	.01613	345	−.06428	−149	−.00198	−36	.84
.85	.35	.01958	355	−.06577	−145	−.00234	−37	.85
.86	.36	.02313	365	−.06722	−142	−.00271	−38	.86
.87	.37	.02678	375	−.06864	−138	−.00309	−38	.87
.88	.38	.03053	385	−.07002	−134	−.00347	−38	.88
.89	.39	.03438	395	−.07136	−131	−.00385	−40	.89
.90	.40	.03833	405	−.07267	−126	−.00425	−39	.90
.91	.41	.04238	415	−.07393	−122	−.00464	−40	.91
.92	.42	.04653	425	−.07515	−118	−.00504	−40	.92
.93	.43	.05078	435	−.07633	−114	−.00544	−41	.93
.94	.44	.05513	445	−.07747	−109	−.00585	−41	.94
.95	.45	.05958	455	−.07856	−105	−.00626	−41	.95
.96	.46	.06413	465	−.07961	−100	−.00667	−42	.96
.97	.47	.06878	475	−.08061	−96	−.00709	−41	.97
.98	.48	.07353	485	−.08157	−91	−.00750	−42	.98
.99	.49	.07838	495	−.08248	−85	−.00792	−41	.99
1.00	.50	.08333		−.08333		−.00833		1.00

$\mathrm{B} = (\Delta^2 u_{-1} + \Delta^2 u_0)/2$

Everett's Central Difference Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + a\Delta^2 u_0 - b\Delta^2 u_{-1} + c\Delta^4 u_{-1} - d\Delta^4 u_{-2} + e\Delta^6 u_{-2} - f\Delta^6 u_{-3}$$

x	$b=p(\xi)$, $\xi=1-x$		$d=q(\xi)$, $\xi=1-x$		$f=r(\xi)$, $\xi=1-x$		x
	$p(x)=\frac{x^2}{2}-\frac{1}{6}$		$q(x)=\frac{x^4}{24}-\frac{x^2}{8}+\frac{1}{30}$		$r(x)=\frac{x^6}{720}-\frac{x^4}{72}+\frac{7x^2}{240}-\frac{1}{140}$		
	$a=p(x)$	$\Delta p(x)$	$c=q(x)$	$\Delta q(x)$	$e=r(x)$	$\Delta r(x)$	
.00	−.16667	5	.03333	−1	−.00714	0	.00
.01	−.16662	15	.03332	−4	−.00714	1	.01
.02	−.16647	25	.03328	−6	−.00713	1	.02
.03	−.16622	35	.03322	−9	−.00712	2	.03
.04	−.16587	45	.03313	−11	−.00710	3	.04
.05	−.16542	55	.03302	−14	−.00707	3	.05
.06	−.16487	65	.03288	−16	−.00704	4	.06
.07	−.15422	75	.03272	−18	−.00700	4	.07
.08	−.16347	85	.03254	−22	−.00696	5	.08
.09	−.16262	95	.03232	−23	−.00691	6	.09
.10	−.16167	105	.03209	−26	−.00685	6	.10
.11	−.16062	115	.03183	−29	−.00679	6	.11
.12	−.15947	125	.03154	−31	−.00673	8	.12
.13	−.15822	135	.03123	−33	−.00665	7	.13
.14	−.15687	145	.03090	−36	−.00658	9	.14
.15	−.15542	155	.03054	−38	−.00649	8	.15
.16	−.15387	165	.03016	−40	−.00641	10	.16
.17	−.15222	175	.02976	−43	−.00631	10	.17
.18	−.15047	185	.02933	−45	−.00621	10	.18
.19	−.14862	195	.02888	−48	−.00611	11	.19
.20	−.14667	205	.02840	−50	−.00600	12	.20
.21	−.14462	215	.02790	−52	−.00588	12	.21
.22	−.14247	225	.02738	−54	−.00576	12	.22
.23	−.14022	235	.02684	−57	−.00564	13	.23
.24	−.13787	245	.02627	−59	−.00551	14	.24
.25	−.13542	255	.02568	−61	−.00537	14	.25
.26	−.13287	265	.02507	−63	−.00523	14	.26
.27	−.13022	275	.02444	−65	−.00509	15	.27
.28	−.12747	285	.02379	−67	−.00494	15	.28
.29	−.12462	295	.02312	−70	−.00479	16	.29
.30	−.12167	305	.02242	−71	−.00463	16	.30
.31	−.11862	315	.02171	−74	−.00447	17	.31
.32	−.11547	325	.02097	−76	−.00430	17	.32
.33	−.11222	335	.02021	−77	−.00413	18	.33
.34	−.10887	345	.01944	−79	−.00395	17	.34
.35	−.10542	355	.01865	−82	−.00378	19	.35
.36	−.10187	365	.01783	−83	−.00359	18	.36
.37	−.09822	375	.01700	−85	−.00341	19	.37
.38	−.09447	385	.01615	−87	−.00322	20	.38
.39	−.09062	395	.01528	−88	−.00302	19	.39
.40	−.08667	405	.01440	−90	−.00283	20	.40
.41	−.08262	415	.01350	−92	−.00263	21	.41
.42	−.07847	425	.01258	−93	−.00242	20	.42
.43	−.07422	435	.01165	−95	−.00222	21	.43
.44	−.06987	445	.01070	−97	−.00201	22	.44
.45	−.06542	455	.00973	−98	−.00179	21	.45
.46	−.06087	465	.00875	−100	−.00158	22	.46
.47	−.05622	475	.00775	−100	−.00136	22	.47
.48	−.05147	485	.00675	−103	−.00114	22	.48
.49	−.04662	495	.00572	−103	−.00092	22	.49
.50	−.04167	505	.00469	−105	−.00070	23	.50

Everett's Central Difference Interpolation Coefficients for Computing the First Derivative of the Function

$$u'_x = \Delta u_0 + a\,\Delta^2 u_0 - b\,\Delta^2 u_{-1} + c\,\Delta^4 u_{-1} - d\,\Delta^4 u_{-2} + e\,\Delta^6 u_{-2} - f\,\Delta^6 u_{-3}$$

x	$b=p(\xi),\ \xi=1-x$		$d=q(\xi),\ \xi=1-x$		$f=r(\xi),\ \xi=1-x$		x
	$p(x)=\frac{x^2}{2}-\frac{1}{6}$		$q(x)=\frac{x^4}{24}-\frac{x^2}{8}+\frac{1}{30}$		$r(x)=\frac{x^6}{720}-\frac{x^4}{72}+\frac{7x^2}{240}-\frac{1}{140}$		
	$a=p(x)$	$\Delta p(x)$	$c=q(x)$	$\Delta q(x)$	$e=r(x)$	$\Delta r(x)$	
.50	−.04167	505	.00469	−105	−.00070	23	.50
.51	−.03662	515	.00364	−106	−.00047	23	.51
.52	−.03147	525	.00258	−107	−.00024	22	.52
.53	−.02622	535	.00151	−108	−.00002	24	.53
.54	−.02087	545	.00043	−110	.00022	23	.54
.55	−.01542	555	−.00067	−110	.00045	23	.55
.56	−.00987	565	−.00177	−111	.00068	23	.56
.57	−.00422	575	−.00288	−112	.00091	24	.57
.58	.00153	585	−.00400	−113	.00115	24	.58
.59	.00738	595	−.00513	−114	.00139	23	.59
.60	.01333	605	−.00627	−114	.00162	24	.60
.61	.01938	615	−.00741	−115	.00186	24	.61
.62	.02553	625	−.00856	−116	.00210	23	.62
.63	.03178	635	−.00972	−116	.00233	24	.63
.64	.03813	645	−.01088	−116	.00257	24	.64
.65	.04458	655	−.01204	−117	.00281	23	.65
.66	.05113	665	−.01321	−117	.00304	24	.66
.67	.05778	675	−.01438	−118	.00328	23	.67
.68	.06453	685	−.01556	−117	.00351	24	.68
.69	.07138	695	−.01673	−118	.00375	23	.69
.70	.07833	705	−.01791	−118	.00398	23	.70
.71	.08538	715	−.01909	−118	.00421	23	.71
.72	.09253	725	−.02027	−118	.00444	23	72
.73	.09978	735	−.02145	−117	.00467	22	.73
.74	.10713	745	−.02262	−118	.00489	23	.74
.75	.11458	755	−.02380	−117	.00512	22	.75
.76	.12213	765	−.02497	−116	.00534	22	.76
.77	.12978	775	−.02613	−116	.00556	21	.77
.78	.13753	785	−.02729	−116	.00577	22	.78
.79	.14538	795	−.02845	−115	.00599	21	.79
.80	.15333	805	−.02960	−114	.00620	21	.80
.81	.16138	815	−.03074	−114	.00641	20	.81
.82	.16953	825	−.03188	−112	.00661	20	.82
.83	.17778	835	−.03300	−112	.00681	20	.83
.84	.18613	845	−.03412	−111	.00701	19	.84
.85	.19458	855	−.03523	−109	.00720	19	.85
.86	.20313	865	−.03632	−109	.00739	19	.86
.87	.21178	875	−.03741	−107	.00758	18	.87
.88	.22053	885	−.03848	−106	.00776	18	.88
.89	.22938	895	−.03954	−104	.00794	18	.89
.90	.23833	905	−.04058	−103	.00811	16	.90
.91	.24738	915	−.04161	−101	.00827	17	.91
.92	.25653	925	−.04262	−99	.00844	15	.92
.93	.26578	935	−.04361	−98	.00859	15	.93
.94	.27513	945	−.04459	−95	.00874	15	.94
.95	.28458	955	−.04554	−94	.00889	14	.95
.96	.29413	965	−.04648	−91	.00903	13	.96
.97	.30378	975	−.04739	−89	.00916	13	.97
.98	.31353	985	−.04828	−87	.00929	12	.98
.99	.32338	995	−.04915	−85	.00941	11	.99
1.00	.33333		−.05000		.00952		1.00

Coefficients of Leading Major Differences to Compute Leading Minor Differences of the Function when Six Ordinates are Given and Fifth Difference Interpolation Formulas are Used.

$$\delta^k u = aA + bB + cC + dD + eE$$

For Subdivision of Major Interval in Five Minor Intervals

Leading Minor Differences	Leading Major Differences				
	$A = \Delta u_0$	$B = \Delta^2 u_0$	$C = \Delta^3 u_0$	$D = \Delta^4 u_0$	$E = \Delta^5 u_0$
$\delta^k u_0$	Newton's Binomial Interpolation Coefficients for First Major Interval				
	a	b	c	d	e
First	.20000000	−.08000000	.04800000	−.03360000	.02553600
Second		.04000000	−.03200000	.02560000	−.02112000
Third			.00800000	−.00960000	.00960000
Fourth				.00160000	−.00256000
Fifth					.00032000
$\delta^k u_2$	Newton's Binomial Interpolation Coefficients for Middle Major Interval				
	a	b	c	d	e
First	.20000000	.32000000	.08800000	−.01760000	.00633600
Second		.04000000	.04800000	.00160000	−.00192000
Third			.00800000	.00640000	−.00160000
Fourth				.00160000	.00064000
Fifth					.00032000
$\delta^k u_2$	Osculatory Interpolation Coefficients for Middle Major Interval				
	a	b	c	d	e
First	.20000000	.32000000	.08800000	−.01760000	.00160000
Second		.04000000	.04800000	.00160000	.00480000
Third			.00800000	.00640000	−.00480000
Fourth				.00160000	−.00320000
Fifth					.00800000

For Subdivision of Major Interval in Ten Minor Intervals

Leading Minor Differences	Leading Major Differences				
	$A = \Delta u_0$	$B = \Delta^2 u_0$	$C = \Delta^3 u_0$	$D = \Delta^4 u_0$	$E = \Delta^5 u_0$
$\delta^k u_0$	Newton's Binomial Interpolation Coefficients for First Major Interval				
	a	b	c	d	e
First	.10000000	−.04500000	.02850000	−.02066250	.01611675
Second		.01000000	−.00900000	.00772500	−.00669750
Third			.00100000	−.00135000	.00146250
Fourth				.00010000	−.00018000
Fifth					.00001000
$\delta^k u_2$	Newton's Binomial Interpolation Coefficients for Middle Major Interval				
	a	b	c	d	e
First	.10000000	.15500000	.03850000	−.00866250	.00329175
Second		.01000000	.01100000	−.00027500	−.00024750
Third			.00100000	.00065000	−.00023750
Fourth				.00010000	.00002000
Fifth					.00001000

Coefficients of Leading Major Differences to Compute Leading Minor Differences of the Function when Six Ordinates are Given and Fifth Difference Interpolation Formulas are Used

$$\delta^k u = aA + bB + cC + dD + eE$$

For Subdivison of Major Interval in Ten Minor Intervals					
Leading Minor Differences	Leading Major Differences				
	$A = \Delta u_0$	$B = \Delta^2 u_0$	$C = \Delta^3 u_0$	$D = \Delta^4 u_0$	$E = \Delta^5 u_0$
$\delta^k u_2$	Osculatory Interpolation Coefficients for Middle Major Interval				
	a	b	c	d	e
First	.10000000	.15500000	.03850000	−.00866250	.00024375
Second		.01000000	.01100000	−.00027500	.00111250
Third			.00100000	.00065000	.00026250
Fourth				.00010000	−.00070000
Fifth					.00025000

Coefficients of Leading Major Differences to Compute Leading Minor Differences of the Function when Four Ordinates are Given and Third Difference Interpolation Formulas are Used.

$$\delta^k u = aA + bB + cC$$

For Subdivision of Major Interval in						
Leading Minor Differences	Five Minor Intervals			Ten Minor Intervals		
	Leading Major Differences			Leading Major Differences		
	$A = \Delta u_0$	$B = \Delta^2 u_0$	$C = \Delta^3 u_0$	$A = \Delta u_0$	$B = \Delta^2 u_0$	$C = \Delta^3 u_0$
$\delta^k u_0$	Newton's Binomial Interpolation Coefficients for First Major Interval					
	a	b	c	a	b	c
First	.2000	−.0800	.0480	.1000	−.0450	.0285
Second		.0400	−.0320		.0100	−.0090
Third			.0080			.0010
$\delta^k u_1$	Newton's Binomial Interpolation Coefficients for Middle Major Interval					
	a	b	c	a	b	c
First	.2000	.1200	−.0320	.1000	.0550	−.0165
Second		.0400	.0080		.0100	.0010
Third			.0080			.0010
$\delta^k u_1$	Osculatory Interpolation Coefficients for Middle Major Interval.					
	a	b	c	a	b	c
First	.2000	.1200	−.0160	.1000	.0550	−.0045
Second		.0400	−.0160		.0100	−.0070
Third			.0240			.0030

Coefficients in Lubbock's Summation Formula

$$\sum_{t=0}^{mn-1} u_{t/n} = n \sum_{t=0}^{m-1} u_t + \frac{n-1}{2}(u_m - u_0) + aA + bB + cC + \cdots\cdots$$

n	$A = \Delta u_0 - \Delta u_m$ $a = \frac{n^2-1}{12n}$	$B = \Delta^2 u_m - \Delta^2 u_0$ $b = \frac{n^2-1}{24n}$	$C = \Delta^3 u_0 - \Delta^3 u_m$ $c = \frac{(n^2-1)(19n^2-1)}{720n^3}$	n
2	.12500000	.06250000	.03906250	2
3	.22222222	.11111111	.06995885	3
4	.31250000	.15625000	.09863281	4
5	.40000000	.20000000	.12640000	5
6	.48611111	.24305556	.15371013	6
7	.57142857	.28571429	.18075802	7
8	.65625000	.32812500	.20764160	8
9	.74074074	.37037037	.23441549	9
10	.82500000	.41250000	.26111250	10
11	.90909091	.45454545	.28775357	11
12	.99305556	.49652778	.31435266	12

n	$D = \Delta^4 u_m - \Delta^4 u_0$ $d = \frac{(n^2-1)(9n^2-1)}{480n^3}$	$E = \Delta^5 u_0 - \Delta^5 u_m$ $e = \frac{(n^2-1)(863n^4-145n^2+2)}{60480n^5}$	$F = \Delta^6 u_m - \Delta^6 u_0$ $f = \frac{(n^2-1)(275n^4-61n^2+2)}{24192n^5}$	n
2	.02734375	.02050781	.01611328	2
3	.04938272	.03734187	.02956866	3
4	.06982422	.05294800	.04203796	4
5	.08960000	.06803200	.05408000	5
6	.10903742	.08284855	.06590160	6
7	.12827988	.09751039	.07759522	7
8	.14739990	.11207485	.08920813	8
9	.16643804	.12657410	.10076691	9
10	.18541875	.14102756	.11228766	10
11	.20435763	.15544765	.12378067	11
12	.22326509	.16984268	.13525283	12

Lubbock's formula in effect enables one to interpolate $n-1$ ordinates in each of m major intervals separating the equidistant statistical ordinates $u_0, u_1, \ldots\ldots u_m$, and obtain the sum of the original and interpolated ordinates. The sum of the ordinates separated by minor intervals is expressed in terms of the original major ordinates and their differences. It is necessary to know a sufficient number of major ordinates beyond u_m to calculate all the differences used.

If u_m and all ordinates beyond it are equal the formula simplifies considerably since all the differences of u_m then vanish. The formula is particularly useful in cases where u_m approaches zero asymptotically because then u_m and its differences become small and may be neglected. The sum of the ordinates obtained by Lubbock's formula may be used to obtain an approximate value of the area. For a full explanation and examples illustrating the application of the formula consult the Text Book of the Institute of Actuaries, Part II, pages 467-474.

Logarithm of Bernoulli's Numbers from $n=1$ to $n=200$

n	$\log B_n$	n	$\log B_n$	n	$\log B_n$	n	$\log B_n$
1	9.221 8487	51	80.869 6086	101	218.574 1327	151	378.695 0862
2	8.522 8787	52	83.303 1195	102	221.594 8991	152	382.063 0427
3	8.376 7507	53	85.753 2549	103	224.624 1605	153	385.436 7042
4	8.522 8787	54	88.219 7027	104	227.661 8344	154	388.816 0336
5	8.879 4261	55	90.702 1621	105	230.707 8403	155	392.200 9940
6	9.403 3154	56	93.200 3434	106	233.762 0988	156	395.591 5493
7	0.066 9468	57	95.713 9669	107	236.824 5325	157	398.987 6635
8	0.850 7783	58	98.242 7630	108	239.895 0649	158	402.389 3014
9	1.740 1350	59	100.786 4712	109	242.973 6214	159	405.796 4281
10	2.723 5577	60	103.344 8396	110	246.060 1285	160	409.209 0090
11	3.791 8396	61	105.917 6251	111	249.154 5140	161	412.627 0102
12	4.937 4189	62	108.504 5922	112	252.256 7072	162	416.050 3980
13	6.153 9725	63	111.105 5130	113	255.366 6384	163	419.479 1392
14	7.436 1345	64	113.720 1669	114	258.484 2393	164	422.913 2010
15	8.779 2940	65	116.348 3403	115	261.609 4429	165	426.352 5511
16	10.179 4460	66	118.989 8258	116	264.742 1832	166	429.797 1575
17	11.633 0791	67	121.644 4225	117	267.882 3952	167	433.246 9884
18	13.137 0899	68	124.311 9354	118	271.030 0153	168	436.702 0128
19	14.688 7155	69	126.992 1753	119	274.184 9809	169	440.162 1997
20	16.285 4803	70	129.684 9584	120	277.347 2303	170	443.627 5185
21	17.925 1537	71	132.390 1061	121	280.516 7030	171	447.097 9393
22	19.605 7151	72	135.107 4449	122	283.693 3393	172	450.573 4321
23	21.325 3257	73	137.836 8060	123	286.877 0808	173	454.053 9676
24	23.082 3051	74	140.578 0254	124	290.067 8697	174	457.539 5166
25	24.875 1115	75	143.330 9432	125	293.265 6493	175	461.030 0503
26	26.702 3252	76	146.095 4040	126	296.470 3638	176	464.525 5403
27	28.562 6351	77	148.871 2564	127	299.681 9583	177	468.025 9586
28	30.454 8261	78	151.658 3529	128	302.900 3787	178	471.531 2772
29	32.377 7692	79	154.456 5499	129	306.125 5718	179	475.041 4687
30	34.330 4127	80	157.265 7073	130	309.357 4852	180	478.556 5059
31	36.311 7745	81	160.085 6885	131	312.596 0673	181	482.076 3619
32	38.320 9353	82	162.916 3602	132	315.841 2672	182	485.601 0102
33	40.357 0329	83	165.757 5925	133	319.093 0350	183	489.130 4244
34	42.419 2569	84	168.609 2585	134	322.351 3213	184	492.664 5786
35	44.506 8442	85	171.471 2344	135	325.616 0776	185	496.203 4469
36	46.619 0754	86	174.343 3992	136	328.887 2561	186	499.747 0040
37	48.755 2702	87	177.225 6348	137	332.164 8095	187	503.295 2247
38	50.914 7853	88	180.117 8258	138	335.448 6916	188	506.848 0841
39	53.097 0109	89	183.019 8593	139	338.738 8564	189	510.405 5575
40	55.301 3682	90	185.931 6251	140	342.035 2589	190	513.967 6206
41	57.527 3074	91	188.853 0153	141	345.337 8546	191	517.534 2492
42	59.774 3050	92	191.783 9245	142	348.646 5996	192	521.105 4194
43	62.041 8627	93	194.724 2495	143	351.961 4508	193	524.681 1077
44	64.329 5049	94	197.673 8892	144	355.282 3654	194	528.261 2907
45	66.636 7776	95	200.632 7448	145	358.609 3015	195	531.845 9452
46	68.963 2471	96	203.600 7197	146	361.942 2176	196	535.435 0483
47	71.308 4982	97	206.577 7190	147	365.281 0729	197	539.028 5773
48	73.672 1333	98	209.563 6499	148	368.625 8268	198	542.626 5098
49	76.053 7714	99	212.558 4216	149	371.976 4398	199	546.228 8237
50	78.453 0468	100	215.561 9450	150	375.332 8725	200	549.835 4968

First Eight Powers of Integers from 1 to 100

n	n^2	n^3	n^4	n^5	n
1	1	1	1	1	1
2	4	8	16	32	2
3	9	27	81	243	3
4	16	64	256	1 024	4
5	25	125	625	3 125	5
6	36	216	1 296	7 776	6
7	49	343	2 401	16 807	7
8	64	512	4 096	32 768	8
9	81	729	6 561	59 049	9
10	100	1 000	10 000	100 000	10
11	121	1 331	14 641	161 051	11
12	144	1 728	20 736	248 832	12
13	169	2 197	28 561	371 293	13
14	196	2 744	38 416	537 824	14
15	225	3 375	50 625	759 375	15
16	256	4 096	65 536	1 048 576	16
17	289	4 913	83 521	1 419 857	17
18	324	5 832	104 976	1 889 568	18
19	361	6 859	130 321	2 476 099	19
20	400	8 000	160 000	3 200 000	20
21	441	9 261	194 481	4 084 101	21
22	484	10 648	234 256	5 153 632	22
23	529	12 167	279 841	6 436 343	23
24	576	13 824	331 776	7 962 624	24
25	625	15 625	390 625	9 765 625	25
26	676	17 576	456 976	11 881 376	26
27	729	19 683	531 441	14 348 907	27
28	784	21 952	614 656	17 210 368	28
29	841	24 389	707 281	20 511 149	29
30	900	27 000	810 000	24 300 000	30
31	961	29 791	923 521	28 629 151	31
32	1 024	32 768	1 048 576	33 554 432	32
33	1 089	35 937	1 185 921	39 135 393	33
34	1 156	39 304	1 336 336	45 435 424	34
35	1 225	42 875	1 500 625	52 521 875	35
36	1 296	46 656	1 679 616	60 466 176	36
37	1 369	50 653	1 874 161	69 343 957	37
38	1 444	54 872	2 085 136	79 235 168	38
39	1 521	59 319	2 313 441	90 224 199	39
40	1 600	64 000	2 560 000	102 400 000	40
41	1 681	68 921	2 825 761	115 856 201	41
42	1 764	74 088	3 111 696	130 691 232	42
43	1 849	79 507	3 418 801	147 008 443	43
44	1 936	85 184	3 748 096	164 916 224	44
45	2 025	91 125	4 100 625	184 528 125	45
46	2 116	97 336	4 477 456	205 962 976	46
47	2 209	103 823	4 879 681	229 345 007	47
48	2 304	110 592	5 308 416	254 803 968	48
49	2 401	117 649	5 764 801	282 475 249	49
50	2 500	125 000	6 250 000	312 500 000	50

First Eight Powers of Integers from 1 to 100

n	n^6	n^7	n^8	n
1	1	1	1	1
2	64	128	256	2
3	729	2 187	6 561	3
4	4 096	16 384	65 536	4
5	15 625	78 125	390 625	5
6	46 656	279 936	1 679 616	6
7	117 649	823 543	5 764 801	7
8	262 144	2 097 152	16 777 216	8
9	531 441	4 782 969	43 046 721	9
10	1 000 000	10 000 000	100 000 000	10
11	1 771 561	19 487 171	214 358 881	11
12	2 985 984	35 831 808	429 981 696	12
13	4 826 809	62 748 517	815 730 721	13
14	7 529 536	105 413 504	1 475 789 056	14
15	11 390 625	170 859 375	2 562 890 625	15
16	16 777 216	268 435 456	4 294 967 296	16
17	24 137 569	410 338 673	6 975 757 441	17
18	34 012 224	612 220 032	11 019 960 576	18
19	47 045 881	893 871 739	16 983 563 041	19
20	64 000 000	1 280 000 000	25 600 000 000	20
21	85 766 121	1 801 088 541	37 822 859 361	21
22	113 379 904	2 494 357 888	54 875 873 536	22
23	148 035 889	3 404 825 447	78 310 985 281	23
24	191 102 976	4 586 471 424	110 075 314 176	24
25	244 140 625	6 103 515 625	152 587 890 625	25
26	308 915 776	8 031 810 176	208 827 064 576	26
27	387 420 489	10 460 353 203	282 429 536 481	27
28	481 890 304	13 492 928 512	377 801 998 336	28
29	594 823 321	17 249 876 309	500 246 412 961	29
30	729 000 000	21 870 000 000	656 100 000 000	30
31	887 503 681	27 512 614 111	852 891 037 441	31
32	1 073 741 824	34 359 738 368	1 099 511 627 776	32
33	1 291 467 969	42 618 442 977	1 406 408 618 241	33
34	1 544 804 416	52 523 350 144	1 785 793 904 896	34
35	1 838 265 625	64 339 296 875	2 251 875 390 625	35
36	2 176 782 336	78 364 164 096	2 821 109 907 456	36
37	2 565 726 409	94 931 877 133	3 512 479 453 921	37
38	3 010 936 384	114 415 582 592	4 347 792 138 496	38
39	3 518 743 761	137 231 006 679	5 352 009 260 481	39
40	4 096 000 000	163 840 000 000	6 553 600 000 000	40
41	4 750 104 241	194 754 273 881	7 984 925 229 121	41
42	5 489 031 744	230 539 333 248	9 682 651 996 416	42
43	6 321 363 049	271 818 611 107	11 688 200 277 601	43
44	7 256 313 856	319 277 809 664	14 048 223 625 216	44
45	8 303 765 625	373 669 453 125	16 815 125 390 625	45
46	9 474 296 896	435 817 657 216	20 047 612 231 936	46
47	10 779 215 329	506 623 120 463	23 811 286 661 761	47
48	12 230 590 464	587 068 342 272	28 179 280 429 056	48
49	13 841 287 201	678 223 072 849	33 232 930 569 601	49
50	15 625 000 000	781 250 000 000	39 062 500 000 000	50

First Eight Powers of Integers from 1 to 100

n	n^2	n^3	n^4	n^5	n
51	2 601	132 651	6 765 201	345 025 251	51
52	2 704	140 608	7 311 616	380 204 032	52
53	2 809	148 877	7 890 481	418 195 493	53
54	2 916	157 464	8 503 056	459 165 024	54
55	3 025	166 375	9 150 625	503 284 375	55
56	3 136	175 616	99 834 496	550 731 776	56
57	3 249	185 193	10 556 001	601 692 057	57
58	3 364	195 112	11 316 496	656 356 768	58
59	3 481	205 379	12 117 361	714 924 299	59
60	3 600	216 000	12 960 000	777 600 000	60
61	3 721	226 981	13 845 841	844 596 301	61
62	3 844	238 328	14 776 336	916 132 832	62
63	3 969	250 047	15 752 961	992 436 543	63
64	4 096	262 144	16 777 216	1 074 741 824	64
65	4 225	274 625	17 850 625	1 160 290 625	65
66	4 356	287 496	18 974 736	1 252 332 576	66
67	4 489	300 763	20 151 121	1 350 125 107	67
68	4 624	314 432	21 381 376	1 453 933 568	68
69	4 761	328 509	22 667 121	1 564 031 349	69
70	4 900	343 000	24 010 000	1 680 700 000	70
71	5 041	357 911	25 411 681	1 804 229 351	71
72	5 184	373 248	26 873 856	1 934 917 632	72
73	5 329	389 017	28 398 241	2 073 071 593	73
74	5 476	405 224	29 986 576	2 219 006 624	74
75	5 625	421 875	31 640 625	2 373 046 875	75
76	5 776	438 976	33 362 176	2 535 525 376	76
77	5 929	456 533	35 153 041	2 706 784 157	77
78	6 084	474 552	37 015 056	2 887 174 368	78
79	6 241	493 039	38 950 081	3 077 056 399	79
80	6 400	512 000	40 960 000	3 276 800 000	80
81	6 561	531 441	43 046 721	3 486 784 401	81
82	6 724	551 368	45 212 176	3 707 398 432	82
83	6 889	571 787	47 468 321	3 939 040 643	83
84	7 056	592 704	49 787 136	4 182 119 424	84
85	7 225	614 125	52 200 625	4 437 053 125	85
86	7 396	636 056	54 700 816	4 704 270 176	86
87	7 569	658 503	57 289 761	4 984 209 207	87
88	7 744	681 472	59 969 536	5 277 319 168	88
89	7 921	704 969	62 742 241	5 584 059 449	89
90	8 100	729 000	65 610 000	5 904 900 000	90
91	8 281	753 571	68 574 961	6 240 321 451	91
92	8 464	778 688	71 639 296	6 590 815 232	92
93	8 649	804 357	74 805 201	6 956 883 693	93
94	8 836	830 584	78 074 896	7 339 040 224	94
95	9 025	857 375	81 450 625	7 737 809 375	95
96	9 216	884 736	84 934 656	8 153 726 976	96
97	9 409	912 673	88 529 281	8 587 340 257	97
98	9 604	941 192	92 236 816	9 039 207 968	98
99	9 801	970 299	96 059 601	9 509 900 499	99
100	10 000	1 000 000	100 000 000	10 000 000 000	100

First Eight Powers of Integers from 1 to 100

n	n^6	n^7	n^8	n
51	17 596 287 801	897 410 677 851	45 767 944 570 401	51
52	19 770 609 664	1 028 071 702 528	53 459 728 531 456	52
53	22 164 361 129	1 174 711 139 837	62 259 690 411 361	53
54	24 794 911 296	1 338 925 209 984	72 301 961 339 136	54
55	27 680 640 625	1 522 435 234 375	83 733 937 890 625	55
56	30 840 979 456	1 727 094 849 536	96 717 311 574 016	56
57	34 296 447 249	1 954 897 493 193	111 429 157 112 001	57
58	38 068 692 544	2 207 984 167 552	128 063 081 718 016	58
59	42 180 533 641	2 488 651 484 819	146 830 437 604 321	59
60	46 656 000 000	2 799 360 000 000	167 961 600 000 000	60
61	51 520 374 361	3 142 742 836 021	191 707 312 997 281	61
62	56 800 235 584	3 521 614 606 208	218 340 105 584 896	62
63	62 523 502 209	3 938 980 639 167	248 155 780 267 521	63
64	68 719 476 736	4 398 046 511 104	281 474 976 710 656	64
65	75 418 890 625	4 902 227 890 625	318 644 812 890 625	65
66	82 653 950 016	5 455 160 701 056	360 040 606 269 696	66
67	90 458 382 169	6 060 711 605 323	406 067 677 556 641	67
68	98 867 482 624	6 722 988 818 432	457 163 239 653 376	68
69	107 918 163 081	7 446 353 252 589	513 798 374 428 641	69
70	117 649 000 000	8 235 430 000 000	576 480 100 000 000	70
71	128 100 283 921	9 095 120 158 391	645 753 531 245 761	71
72	139 314 069 504	10 030 613 004 288	722 204 136 308 736	72
73	151 334 226 289	11 047 398 519 097	806 460 091 894 081	73
74	164 206 490 176	12 151 280 273 024	899 194 740 203 776	74
75	177 978 515 625	13 348 388 671 875	1 001 129 150 390 625	75
76	192 699 928 576	14 645 194 571 776	1 113 034 787 454 976	76
77	208 422 380 089	16 048 523 266 853	1 235 736 291 547 681	77
78	225 199 600 704	17 565 568 854 912	1 370 114 370 683 136	78
79	243 087 455 521	19 203 908 986 159	1 517 108 809 906 561	79
80	262 144 000 000	20 971 520 000 000	1 677 721 600 000 000	80
81	282 429 536 481	22 876 792 454 961	1 853 020 188 851 841	81
82	304 006 671 424	24 928 547 056 768	2 044 140 858 654 976	82
83	326 940 373 369	27 136 050 989 627	2 252 292 232 139 041	83
84	351 298 031 616	29 509 034 655 744	2 478 758 911 082 496	84
85	377 149 515 625	32 057 708 828 125	2 724 905 250 390 625	85
86	404 567 235 136	34 792 782 221 696	2 992 179 271 065 856	86
87	433 626 201 009	37 725 479 487 783	3 282 116 715 437 121	87
88	464 404 086 784	40 867 559 636 992	3 596 345 248 055 296	88
89	496 981 290 961	44 231 334 895 529	3 936 588 805 702 081	89
90	531 441 000 000	47 829 690 000 000	4 304 672 100 000 000	90
91	567 869 252 041	51 676 101 935 731	4 702 525 276 151 521	91
92	606 355 001 344	55 784 660 123 648	5 132 188 731 375 616	92
93	646 990 183 449	60 170 087 060 757	5 595 818 096 650 401	93
94	689 869 781 056	64 847 759 419 264	6 095 689 385 410 816	94
95	735 091 890 625	69 833 729 609 375	6 634 204 312 890 625	95
96	782 757 789 696	75 144 747 810 816	7 213 895 789 838 336	96
97	832 972 004 929	80 798 284 478 113	7 837 433 594 376 961	97
98	885 842 380 864	86 812 553 324 672	8 507 630 225 817 856	98
99	941 480 149 401	93 206 534 790 699	9 227 446 944 279 201	99
100	1 000 000 000 000	100 000 000 000 000	10 000 000 000 000 000	100

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
1	1	1	1.000 0000	1.000 0000	1.000 000 000
2	4	8	1.414 2136	1.259 9210	0.500 000 000
3	9	27	1.732 0508	1.442 2496	.333 333 333
4	16	64	2.000 0000	1.587 4011	.250 000 000
5	25	125	2.236 0680	1.709 9759	.200 000 000
6	36	216	2.449 4897	1.817 1206	.166 666 667
7	49	343	2.645 7513	1.912 9312	.142 857 143
8	64	512	2.828 4271	2.000 0000	.125 000 000
9	81	729	3.000 0000	2.080 0837	.111 111 111
10	1 00	1 000	3.162 2777	2.154 4347	.100 000 000
11	1 21	1 331	3.316 6248	2.223 9801	.090 909 091
12	1 44	1 728	3.464 1016	2.289 4283	.083 333 333
13	1 69	2 197	3.605 5513	2.351 3347	.076 923 077
14	1 96	2 744	3.741 6574	2.410 1422	.071 428 571
15	2 25	3 375	3.872 9833	2.466 2121	.066 666 667
16	2 56	4 096	4.000 0000	2.519 8421	.062 500 000
17	2 89	4 913	4.123 1056	2.571 2816	.058 823 529
18	3 24	5 832	4.242 6407	2.620 7414	.055 555 556
19	3 61	6 859	4.358 8989	2.668 4016	.052 631 579
20	4 00	8 000	4.472 1360	2.714 4177	.050 000 000
21	4 41	9 261	4.582 5757	2.758 9243	.047 619 048
22	4 84	10 648	4.690 4158	2.802 0393	.045 454 545
23	5 29	12 167	4.795 8315	2.843 8670	.043 478 261
24	5 76	13 824	4.898 9795	2.884 4991	.041 666 667
25	6 25	15 625	5.000 0000	2.924 0177	.040 000 000
26	6 76	17 576	5.099 0195	2.962 4960	.038 461 538
27	7 29	19 683	5.196 1524	3.000 0000	.037 037 037
28	7 84	21 952	5.291 5026	3.036 5889	.035 714 286
29	8 41	24 389	5.385 1648	3.072 3168	.034 482 759
30	9 00	27 000	5.477 2256	3.107 2325	.033 333 333
31	9 61	29 791	5.567 7644	3.141 3806	.032 258 065
32	10 24	32 768	5.656 8542	3.174 8021	.031 250 000
33	10 89	35 937	5.744 5626	3.207 5343	.030 303 030
34	11 56	39 304	5.830 9519	3.239 6118	.029 411 765
35	12 25	42 875	5.916 0798	3.271 0663	.028 571 429
36	12 96	46 656	6.000 0000	3.301 9272	.027 777 778
37	13 69	50 653	6.082 7625	3.332 2218	.027 027 027
38	14 44	54 872	6.164 4140	3.361 9754	.026 315 789
39	15 21	59 319	6.244 9980	3.391 2114	.025 641 026
40	16 00	64 000	6.324 5553	3.419 9519	.025 000 000
41	16 81	68 921	6.403 1242	3.448 2172	.024 390 244
42	17 64	74 088	6.480 7407	3.476 0266	.023 809 524
43	18 49	79 507	6.557 4385	3.503 3981	.023 255 814
44	19 36	85 184	6.633 2496	3.530 3483	.022 727 273
45	20 25	91 125	6.708 2039	3.556 8933	.022 222 222
46	21 16	97 336	6.782 3300	3.583 0479	.021 739 130
47	22 09	103 823	6.855 6546	3.608 8261	.021 276 596
48	23 04	110 592	6.928 2032	3.634 2411	.020 833 333
49	24 01	117 649	7.000 0000	3.659 3057	.020 408 163
50	25 00	125 000	7.071 0678	3.684 0314	.020 000 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
51	26 01	132 651	7.141 4284	3.708 4298	.019 607 843
52	27 04	140 608	7.211 1026	3.732 5111	.019 230 769
53	28 09	148 877	7.280 1099	3.756 2858	.018 867 925
54	29 16	157 464	7.348 4692	3.779 7631	.018 518 519
55	30 25	166 375	7.416 1985	3.802 9525	.018 181 818
56	31 36	175 616	7.483 3148	3.825 8624	.017 857 143
57	32 49	185 193	7.549 8344	3.848 5011	.017 543 860
58	33 64	195 112	7.615 7731	3.870 8766	.017 241 379
59	34 81	205 379	7.681 1457	3.892 9965	.016 949 153
60	36 00	216 000	7.745 9667	3.914 8676	.016 666 667
61	37 21	226 981	7.810 2497	3.936 4972	.016 393 443
62	38 44	238 328	7.874 0079	3.957 8915	.016 129 032
63	39 69	250 047	7.937 2539	3.979 0571	.015 873 016
64	40 96	262 144	8.000 0000	4.000 0000	.015 625 000
65	42 25	274 625	8.062 2577	4.020 7256	.015 384 615
66	43 56	287 496	8.124 0384	4.041 2401	.015 151 515
67	44 89	300 763	8.185 3528	4.061 5480	.014 925 373
68	46 24	314 432	8.246 2113	4.081 6551	.014 705 882
69	47 61	328 509	8.306 6239	4.101 5661	.014 492 754
70	49 00	343 000	8.366 6003	4.121 2853	.014 285 714
71	50 41	357 911	8.426 1498	4.140 8178	.014 084 507
72	51 84	373 248	8.485 2814	4.160 1676	.013 888 889
73	53 29	389 017	8.544 0037	4.179 3392	.013 698 630
74	54 76	405 224	8.602 3253	4.198 3364	.013 513 514
75	56 25	421 875	8.660 2540	4.217 1633	.013 333 333
76	57 76	438 976	8.717 7979	4.235 8236	.013 157 895
77	59 29	456 533	8.774 9644	4.254 3210	.012 987 013
78	60 84	474 552	8.831 7609	4.272 6586	.012 820 513
79	62 41	493 039	8.888 1944	4.290 8404	.012 658 228
80	64 00	512 000	8.944 2719	4.308 8694	.012 500 000
81	65 61	531 441	9.000 0000	4.326 7487	.012 345 679
82	67 24	551 368	9.055 3851	4.344 4815	.012 195 122
83	68 89	571 787	9.110 4336	4.362 0707	.012 048 193
84	70 56	592 704	9.165 1514	4.379 5191	.011 904 762
85	72 25	614 125	9.219 5445	4.396 8296	.011 764 706
86	73 96	636 056	9.273 6185	4.414 0049	.011 627 907
87	75 69	658 503	9.327 3791	4.431 0476	.011 494 253
88	77 44	681 472	9.380 8315	4.447 9602	.011 363 636
89	79 21	704 969	9.433 9811	4.464 7451	.011 235 955
90	81 00	729 000	9.486 8330	4.481 4047	.011 111 111
91	82 81	753 571	9.539 3920	4.497 9414	.010 989 011
92	84 64	778 688	9.591 6630	4.514 3574	.010 869 565
93	86 49	804 357	9.643 6508	4.530 6549	.010 752 688
94	88 36	830 584	9.695 3597	4.546 8359	.010 638 298
95	90 25	857 375	9.746 7943	4.562 9026	.010 526 316
96	92 16	884 736	9.797 9590	4.578 8570	.010 416 667
97	94 09	912 673	9.848 8578	4.594 7009	.010 309 278
98	96 04	941 192	9.899 4949	4.610 4363	.010 204 082
99	98 01	970 299	9.949 8744	4.626 0650	.010 101 010
100	1 00 00	1 000 000	10.000 0000	4.641 5888	.010 000 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
101	1 02 01	1 030 301	10.049 8756	4.657 0095	.009 900 990
102	1 04 04	1 061 208	10.099 5049	4.672 3287	.009 803 922
103	1 06 09	1 092 727	10.148 8916	4.687 5482	.009 708 738
104	1 08 16	1 124 864	10.198 0390	4.702 6694	.009 615 385
105	1 10 25	1 157 625	10.246 9508	4.717 6940	.009 523 810
106	1 12 36	1 191 016	10.295 6301	4.732 6235	.009 433 962
107	1 14 49	1 225 043	10.344 0804	4.747 4594	.009 345 794
108	1 16 64	1 259 712	10.392 3048	4.762 2032	.009 259 259
109	1 18 81	1 295 029	10.440 3065	4.776 8562	.009 174 312
110	1 21 00	1 331 000	10.488 0885	4.791 4199	.009 090 909
111	1 23 21	1 367 631	10.535 6538	4.805 8955	.009 009 009
112	1 25 44	1 404 928	10.583 0052	4.820 2845	.008 928 571
113	1 27 69	1 442 897	10.630 1458	4.834 5881	.008 849 558
114	1 29 96	1 481 544	10.677 0783	4.848 8076	.008 771 930
115	1 32 25	1 520 875	10.723 8053	4.862 9442	.008 695 652
116	1 34 56	1 560 896	10.770 3296	4.876 9990	.008 620 690
117	1 36 89	1 601 613	10.816 6538	4.890 9732	.008 547 009
118	1 39 24	1 643 032	10.862 7805	4.904 8681	.008 474 576
119	1 41 61	1 685 159	10.908 7121	4.918 6847	.008 403 361
120	1 44 00	1 728 000	10.954 4512	4.932 4242	.008 333 333
121	1 46 41	1 771 561	11.000 0000	4.946 0874	.008 264 463
122	1 48 84	1 815 848	11.045 3610	4.959 6757	.008 196 721
123	1 51 29	1 860 867	11.090 5365	4.973 1898	.008 130 081
124	1 53 76	1 906 624	11.135 5287	4.986 6310	.008 064 516
125	1 56 25	1 953 125	11.180 3399	5.000 0000	.008 000 000
126	1 58 76	2 000 376	11.224 9722	5.013 2979	.007 936 508
127	1 61 29	2 048 383	11.269 4277	5.026 5257	.007 874 016
128	1 63 84	2 097 152	11.313 7085	5.039 6842	.007 812 500
129	1 66 41	2 146 689	11.357 8167	5.052 7743	.007 751 938
130	1 69 00	2 197 000	11.401 7543	5.065 7970	.007 692 308
131	1 71 61	2 248 091	11.445 5231	5.078 7531	.007 633 588
132	1 74 24	2 299 968	11.489 1253	5.091 6434	.007 575 758
133	1 76 89	2 352 637	11.532 5626	5.104 4687	.007 518 797
134	1 79 56	2 406 104	11.575 8369	5.117 2299	.007 462 687
135	1 82 25	2 460 375	11.618 9500	5.129 9278	.007 407 407
136	1 84 96	2 515 456	11.661 9038	5.142 5632	.007 352 941
137	1 87 69	2 571 353	11.704 6999	5.155 1367	.007 299 270
138	1 90 44	2 628 072	11.747 3401	5.167 6493	.007 246 377
139	1 93 21	2 685 619	11.789 8261	5.180 1015	.007 194 245
140	1 96 00	2 744 000	11.832 1596	5.192 4941	.007 142 857
141	1 98 81	2 803 221	11.874 3422	5.204 8279	.007 092 199
142	2 01 64	2 863 288	11.916 3753	5.217 1034	.007 042 254
143	2 04 49	2 924 207	11.958 2607	5.229 3215	.006 993 007
144	2 07 36	2 985 984	12.000 0000	5.241 4828	.006 944 444
145	2 10 25	3 048 625	12.041 5946	5.253 5879	.006 896 552
146	2 13 16	3 112 136	12.083 0460	5.265 6374	.006 849 315
147	2 16 09	3 176 523	12.124 3557	5.277 6321	.006 802 721
148	2 19 04	3 241 792	12.165 5251	5.289 5725	.006 756 757
149	2 22 01	3 307 949	12.206 5556	5.301 4592	.006 711 409
150	2 25 00	3 375 000	12.247 4487	5.313 2928	.006 666 667

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
151	2 28 01	3 442 951	12.288 2057	5.325 0740	.006 622 517
152	2 31 04	3 511 808	12.328 8280	5.336 8033	.006 578 947
153	2 34 09	3 581 577	12.369 3169	5.348 4812	.006 535 948
154	2 37 16	3 652 264	12.409 6736	5.360 1084	.006 493 506
155	2 40 25	3 723 875	12.449 8996	5.371 6854	.006 451 613
156	2 43 36	3 796 416	12.489 9960	5.383 2126	.006 410 256
157	2 46 49	3 869 893	12.529 9641	5.394 6907	.006 369 427
158	2 49 64	3 944 312	12.569 8051	5.406 1202	.006 329 114
159	2 52 81	4 019 679	12.609 5202	5.417 5015	.006 289 308
160	2 56 00	4 096 000	12.649 1106	5.428 8352	.006 250 000
161	2 59 21	4 173 281	12.688 5775	5.440 1218	.006 211 180
162	2 62 44	4 251 528	12.727 9221	5.451 3618	.006 172 840
163	2 65 69	4 330 747	12.767 1453	5.462 5556	.006 134 969
164	2 68 96	4 410 944	12.806 2485	5.473 7037	.006 097 561
165	2 72 25	4 492 125	12.845 2326	5.484 8066	.006 060 606
166	2 75 56	4 574 296	12.884 0987	5.495 8647	.006 024 096
167	2 78 89	4 657 463	12.922 8480	5.506 8784	.005 988 024
168	2 82 24	4 741 632	12.961 4814	5.517 8484	.005 952 381
169	2 85 61	4 826 809	13.000 0000	5.528 7748	.005 917 160
170	2 89 00	4 913 000	13.038 4048	5.539 6583	.005 882 353
171	2 92 41	5 000 211	13.076 6968	5.550 4991	.005 847 953
172	2 95 84	5 088 448	13.114 8770	5.561 2978	.005 813 953
173	2 99 29	5 177 717	13.152 9464	5.572 0546	.005 780 347
174	3 02 76	5 268 024	13.190 9060	5.582 7702	.005 747 126
175	3 06 25	5 359 375	13.228 7566	5.593 4447	.005 714 286
176	3 09 76	5 451 776	13.266 4992	5.604 0787	.005 681 818
177	3 13 29	5 545 233	13.304 1347	5.614 6724	.005 649 718
178	3 16 84	5 639 752	13.341 6641	5.625 2263	.005 617 978
179	3 20 41	5 735 339	13.379 0882	5.635 7408	.005 586 592
180	3 24 00	5 832 000	13.416 4079	5.646 2162	.005 555 556
181	3 27 61	5 929 741	13.453 6240	5.656 6528	.005 524 862
182	3 31 24	6 028 568	13.490 7376	5.667 0511	.005 494 505
183	3 34 89	6 128 487	13.527 7493	5.677 4114	.005 464 481
184	3 38 56	6 229 504	13.564 6600	5.687 7340	.005 434 783
185	3 42 25	6 331 625	13.601 4705	5.698 0192	.005 405 405
186	3 45 96	6 434 856	13.638 1817	5.708 2675	.005 376 344
187	3 49 69	6 539 203	13.674 7943	5.718 4791	.005 347 594
188	3 53 44	6 644 672	13.711 3092	5.728 6543	.005 319 149
189	3 57 21	6 751 269	13.747 7271	5.738 7936	.005 291 005
190	3 61 00	6 859 000	13.784 0488	5.748 8971	.005 263 158
191	3 64 81	6 967 871	13.820 2750	5.758 9652	.005 235 602
192	3 68 64	7 077 888	13.856 4065	5.768 9982	.005 208 333
193	3 72 49	7 189 057	13.892 4440	5.778 9966	.005 181 347
194	3 76 36	7 301 384	13.928 3883	5.788 9604	.005 154 639
195	3 80 25	7 414 875	13.964 2400	5.798 8900	.005 128 205
196	3 84 16	7 529 536	14.000 0000	5.808 7857	.005 102 041
197	3 88 09	7 645 373	14.035 6688	5.818 6479	.005 076 142
198	3 92 04	7 762 392	14.071 2473	5.828 4767	.005 050 505
199	3 96 01	7 880 599	14.106 7360	5.838 2725	.005 025 126
200	4 00 00	8 000 000	14.142 1356	5.848 0355	.005 000 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
201	4 04 01	8 120 601	14.177 4469	5.857 7660	.004 975 124
202	4 08 04	8 242 408	14.212 6704	5.867 4643	.004 950 495
203	4 12 09	8 365 427	14.247 8068	5.877 1307	.004 926 108
204	4 16 16	8 489 664	14.282 8569	5.886 7653	.004 901 961
205	4 20 25	8 615 125	14.317 8211	5.896 3685	.004 878 049
206	4 24 36	8 741 816	14.352 7001	5.905 9406	.004 854 369
207	4 28 49	8 869 743	14.387 4946	5.915 4817	.004 830 918
208	4 32 64	8 998 912	14.422 2051	5.924 9921	.004 807 692
209	4 36 81	9 129 329	14.456 8323	5.934 4721	.004 784 689
210	4 41 00	9 261 000	14.491 3767	5.943 9220	.004 761 905
211	4 45 21	9 393 931	14.525 8390	5.953 3418	.004 739 336
212	4 49 44	9 528 128	14.560 2198	5.962 7320	.004 716 981
213	4 53 69	9 663 597	14.594 5195	5.972 0926	.004 694 836
214	4 57 96	9 800 344	14.628 7388	5.981 4240	.004 672 897
215	4 62 25	9 938 375	14.662 8783	5.990 7264	.004 651 163
216	4 66 56	10 077 696	14.696 9385	6.000 0000	.004 629 630
217	4 70 89	10 218 313	14.730 9199	6.009 2450	.004 608 295
218	4 75 24	10 360 232	14.764 8231	6.018 4617	.004 587 156
219	4 79 61	10 503 459	14.798 6486	6.027 6502	.004 566 210
220	4 84 00	10 648 000	14.832 3970	6.036 8107	.004 545 455
221	4 88 41	10 793 861	14.866 0687	6.045 9435	.004 524 887
222	4 92 84	10 941 048	14.899 6644	6.055 0489	.004 504 505
223	4 97 29	11 089 567	14.933 1845	6.064 1270	.004 484 305
224	5 01 76	11 239 424	14.966 6295	6.073 1779	.004 464 286
225	5 06 25	11 390 625	15.000 0000	6.082 2020	.004 444 444
226	5 10 76	11 543 176	15.033 2964	6.091 1994	.004 424 779
227	5 15 29	11 697 083	15.066 5192	6.100 1702	.004 405 286
228	5 19 84	11 852 352	15.099 6689	6.109 1147	.004 385 965
229	5 24 41	12 008 989	15.132 7460	6.118 0332	.004 366 812
230	5 29 00	12 167 000	15.165 7509	6.126 9257	.004 347 826
231	5 33 61	12 326 391	15.198 6842	6.135 7924	.004 329 004
232	5 38 24	12 487 168	15.231 5462	6.144 6337	.004 310 345
233	5 42 89	12 649 337	15.264 3375	6.153 4495	.004 291 845
234	5 47 56	12 812 904	15.297 0585	6.162 2401	.004 273 504
235	5 52 25	12 977 875	15.329 7097	6.171 0058	.004 255 319
236	5 56 96	13 144 256	15.362 2915	6.179 7466	.004 237 288
237	5 61 69	13 312 053	15.394 8043	6.188 4628	.004 219 409
238	5 66 44	13 481 272	15.427 2486	6.197 1544	.004 201 681
239	5 71 21	13 651 919	15.459 6248	6.205 8218	.004 184 100
240	5 76 00	13 824 000	15.491 9334	6.214 4650	.004 166 667
241	5 80 81	13 997 521	15.524 1747	6.223 0843	.004 149 378
242	5 85 64	14 172 488	15.556 3492	6.231 6797	.004 132 231
243	5 90 49	14 348 907	15.588 4573	6.240 2515	.004 115 226
244	5 95 36	14 526 784	15.620 4994	6.248 7998	.004 098 361
245	6 00 25	14 706 125	15.652 4758	6.257 3248	.004 081 633
246	6 05 16	14 886 936	15.684 3871	6.265 8266	.004 065 041
247	6 10 09	15 069 223	15.716 2336	6.274 3054	.004 048 583
248	6 15 04	15 252 992	15.748 0157	6.282 7613	.004 032 258
249	6 20 01	15 438 249	15.779 7338	6.291 1946	.004 016 064
250	6 25 00	15 625 000	15.811 3883	6.299 6053	.004 000 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
251	6 30 01	15 813 251	15.842 9795	6.307 9935	.003 984 064
252	6 35 04	16 003 008	15.874 5079	6.316 3596	.003 968 254
253	6 40 09	16 194 277	15.905 9737	6.324 7035	.003 952 569
254	6 45 16	16 387 064	15.937 3775	6.333 0256	.003 937 008
255	6 50 25	16 581 375	15.968 7194	6.341 3257	.003 921 569
256	6 55 36	16 777 216	16.000 0000	6.349 6042	.003 906 250
257	6 60 49	16 974 593	16.031 2195	6.357 8611	.003 891 051
258	6 65 64	17 173 512	16.062 3784	6.366 0968	.003 875 969
259	6 70 81	17 373 979	16.093 4769	6.374 3111	.003 861 004
260	6 76 00	17 576 000	16.124 5155	6.382 5043	.003 846 154
261	6 81 21	17 779 581	16.155 4944	6.390 6765	.003 831 418
262	6 86 44	17 984 728	16.186 4141	6.398 8279	.003 816 794
263	6 91 69	18 191 447	16.217 2747	6.406 9585	.003 802 281
264	6 96 96	18 399 744	16.248 0768	6.415 0687	.003 787 879
265	7 02 25	18 609 625	16.278 8206	6.423 1583	.003 773 585
266	7 07 56	18 821 096	16.309 5064	6.431 2276	.003 759 398
267	7 12 89	19 034 163	16.340 1346	6.439 2767	.003 745 318
268	7 18 24	19 248 832	16.370 7055	6.447 3057	.003 731 343
269	7 23 61	19 465 109	16.401 2195	6.455 3148	.003 717 472
270	7 29 00	19 683 000	16.431 6767	6.463 3041	.003 703 704
271	7 34 41	19 902 511	16.462 0776	6.471 2736	.003 690 037
272	7 39 84	20 123 648	16.492 4225	6.479 2236	.003 676 471
273	7 45 29	20 346 417	16.522 7116	6.487 1541	.003 663 004
274	7 50 76	20 570 824	16.552 9454	6.495 0653	.003 649 635
275	7 56 25	20 796 875	16.583 1240	6.502 9572	.003 636 364
276	7 61 76	21 024 576	16.613 2477	6.510 8300	.003 623 188
277	7 67 29	21 253 933	16.643 3170	6.518 6839	.003 610 108
278	7 72 84	21 484 952	16.673 3320	6.526 5189	.003 597 122
279	7 78 41	21 717 639	16.703 2931	6.534 3351	.003 584 229
280	7 84 00	21 952 000	16.733 2005	6.542 1326	.003 571 429
281	7 89 61	22 188 041	16.763 0546	6.549 9116	.003 558 719
282	7 95 24	22 425 768	16.792 8556	6.557 6722	.003 546 099
283	8 00 89	22 665 187	16.822 6038	6.565 4144	.003 533 569
284	8 06 56	22 906 304	16.852 2995	6.573 1385	.003 521 127
285	8 12 25	23 149 125	16.881 9430	6.580 8443	.003 508 772
286	8 17 96	23 393 656	16.911 5345	6.588 5323	.003 496 503
287	8 23 69	23 639 903	16.941 0743	6.596 2023	.003 484 321
288	8 29 44	23 887 872	16.970 5627	6.603 8545	.003 472 222
289	8 35 21	24 137 569	17.000 0000	6.611 4890	.003 460 208
290	8 41 00	24 389 000	17.029 3864	6.619 1060	.003 448 276
291	8 46 81	24 642 171	17.058 7221	6.626 7054	.003 436 426
292	8 52 64	24 897 088	17.088 0075	6.634 2874	.003 424 658
293	8 58 49	25 153 757	17.117 2428	6.641 8522	.003 412 969
294	8 64 36	25 412 184	17.146 4282	6.649 3998	.003 401 361
295	8 70 25	25 672 375	17.175 5640	6.656 9302	.003 389 831
296	8 76 16	25 934 336	17.204 6505	6.664 4437	.003 378 378
297	8 82 09	26 198 073	17.233 6879	6.671 9403	.003 367 003
298	8 88 04	26 463 592	17.262 6765	6.679 4200	.003 355 705
299	8 94 01	26 730 899	17.291 6165	6.686 8831	.003 344 482
300	9 00 00	27 000 000	17.320 5081	6.694 3295	.003 333 333

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
301	9 06 01	27 270 901	17.349 3516	6.701 7593	.003 322 259
302	9 12 04	27 543 608	17.378 1472	6.709 1729	.003 311 258
303	9 18 09	27 818 127	17.406 8952	6.716 5700	.003 300 330
304	9 24 16	28 094 464	17.435 5958	6.723 9508	.003 289 474
305	9 30 25	28 372 625	17.464 2492	6.731 3155	.003 278 689
306	9 36 36	28 652 616	17.492 8557	6.738 6641	.003 267 974
307	9 42 49	28 934 443	17.521 4155	6.745 9967	.003 257 329
308	9 48 64	29 218 112	17.549 9288	6.753 3134	.003 246 753
309	9 54 81	29 503 629	17.578 3958	6.760 6143	.003 236 246
310	9 61 00	29 791 000	17.606 8169	6.767 8995	.003 225 806
311	9 67 21	30 080 231	17.635 1921	6.775 1690	.003 215 434
312	9 73 44	30 371 328	17.663 5217	6.782 4229	.003 205 128
313	9 79 69	30 664 297	17.691 8060	6.789 6613	.003 194 888
314	9 85 96	30 959 144	17.720 0451	6.796 8844	.003 184 713
315	9 92 25	31 255 875	17.748 2393	6.804 0921	.003 174 603
316	9 98 56	31 554 496	17.776 3888	6.811 2847	.003 164 557
317	10 04 89	31 855 013	17.804 4938	6.818 4620	.003 154 574
318	10 11 24	32 157 432	17.832 5545	6.825 6242	.003 144 654
319	10 17 61	32 461 759	17.860 5711	6.832 7714	.003 134 796
320	10 24 00	32 768 000	17.888 5438	6.839 9037	.003 125 000
321	10 30 41	33 076 161	17.916 4729	6.847 0213	.003 115 265
322	10 36 84	33 386 248	17.944 3584	6.854 1240	.003 105 590
323	10 43 29	33 698 267	17.972 2008	6.861 2120	.003 095 975
324	10 49 76	34 012 224	18.000 0000	6.868 2855	.003 086 420
325	10 56 25	34 328 125	18.027 7564	6.875 3443	.003 076 923
326	10 62 76	34 645 976	18.055 4701	6.882 3888	.003 067 485
327	10 69 29	34 965 783	18.083 1413	6.889 4188	.003 058 104
328	10 75 84	35 287 552	18.110 7703	6.896 4345	.003 048 780
329	10 82 41	35 611 289	18.138 3571	6.903 4359	.003 039 514
330	10 89 00	35 937 000	18.165 9021	6.910 4232	.003 030 303
331	10 95 61	36 264 691	18.193 4054	6.917 3964	.003 021 148
332	11 02 24	36 594 368	18.220 8672	6.924 3556	.003 012 048
333	11 08 89	36 926 037	18.248 2876	6.931 3008	.003 003 003
334	11 15 56	37 259 704	18.275 6669	6.938 2321	.002 994 012
335	11 22 25	37 595 375	18.303 0052	6.945 1496	.002 985 075
336	11 28 96	37 933 056	18.330 3028	6.952 0533	.002 976 190
337	11 35 69	38 272 753	18.357 5598	6.958 9434	.002 967 359
338	11 42 44	38 614 472	18.384 7763	6.965 8198	.002 958 580
339	11 49 21	38 958 219	18.411 9526	6.972 6826	.002 949 853
340	11 56 00	39 304 000	18.439 0889	6.979 5321	.002 941 176
341	11 62 81	39 651 821	18.466 1853	6.986 3681	.002 932 551
342	11 69 64	40 001 688	18.493 2420	6.993 1906	.002 923 977
343	11 76 49	40 353 607	18.520 2592	7.000 0000	.002 915 452
344	11 83 36	40 707 584	18.547 2370	7.006 7962	.002 906 977
345	11 90 25	41 063 625	18.574 1756	7.013 5791	.002 898 551
346	11 97 16	41 421 736	18.601 0752	7.020 3490	.002 890 173
347	12 04 09	41 781 923	18.627 9360	7.027 1058	.002 881 844
348	12 11 04	42 144 192	18.654 7581	7.033 8497	.002 873 563
349	12 18 01	42 508 549	18.681 5417	7.040 5806	.002 865 330
350	12 25 00	42 875 000	18.708 2869	7.047 2987	.002 857 143

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
351	12 32 01	43 243 551	18.734 9940	7.054 0041	.002 849 003
352	12 39 04	43 614 208	18.761 6630	7.060 6967	.002 840 909
353	12 46 09	43 986 977	18.788 2942	7.067 3767	.002 832 861
354	12 53 16	44 361 864	18.814 8877	7.074 0440	.002 824 859
355	12 60 25	44 738 875	18.841 4437	7.080 6988	.002 816 901
356	12 67 36	45 118 016	18.867 9623	7.087 3411	.002 808 989
357	12 74 49	45 499 293	18.894 4436	7.093 9709	.002 801 120
358	12 81 64	45 882 712	18.920 8879	7.100 5885	.002 793 296
359	12 88 81	46 268 279	18.947 2953	7.107 1937	.002 785 515
360	12 96 00	46 656 000	18.973 6660	7.113 7866	.002 777 778
361	13 03 21	47 045 881	19.000 0000	7.120 3674	.002 770 083
362	13 10 44	47 437 928	19.026 2976	7.126 9360	.002 762 431
363	13 17 69	47 832 147	19.052 5589	7.133 4925	.002 754 821
364	13 24 96	48 228 544	19.078 7840	7.140 0370	.002 747 253
365	13 32 25	48 627 125	19.104 9732	7.146 5695	.002 739 726
366	13 39 56	49 027 896	19.131 1265	7.153 0901	.002 732 240
367	13 46 89	49 430 863	19.157 2441	7.159 5988	.002 724 796
368	13 54 24	49 836 032	19.183 3261	7.166 0957	.002 717 391
369	13 61 61	50 243 409	19.209 3727	7.172 5809	.002 710 027
370	13 69 00	50 653 000	19.235 3841	7.179 0544	.002 702 703
371	13 76 41	51 064 811	19.261 3603	7.185 5162	.002 695 418
372	13 83 84	51 478 848	19.287 3015	7.191 9663	.002 688 172
373	13 91 29	51 895 117	19.313 2079	7.198 4050	.002 680 965
374	13 98 76	52 313 624	19.339 0796	7.204 8322	.002 673 797
375	14 06 25	52 734 375	19.364 9167	7.211 2479	.002 666 667
376	14 13 76	53 157 376	19.390 7194	7.217 6522	.002 659 574
377	14 21 29	53 582 633	19.416 4878	7.224 0450	.002 652 520
378	14 28 84	54 010 152	19.442 2221	7.230 4268	.002 645 503
379	14 36 41	54 439 939	19.467 9223	7.236 7972	.002 638 522
380	14 44 00	54 872 000	19.493 5887	7.243 1565	.002 631 579
381	14 51 61	55 306 341	19.519 2213	7.249 5045	.002 624 672
382	14 59 24	55 742 968	19.544 8203	7.255 8415	.002 617 801
383	14 66 89	56 181 887	19.570 3858	7.262 1675	.002 610 966
384	14 74 56	56 623 104	19.595 9179	7.268 4824	.002 604 167
385	14 82 25	57 066 625	19.621 4169	7.274 7864	.002 597 403
386	14 89 96	57 512 456	19.646 8827	7.281 0794	.002 590 674
387	14 97 69	57 960 603	19.672 3156	7.287 3617	.002 583 979
388	15 05 44	58 411 072	19.697 7156	7.293 6330	.002 577 320
389	15 13 21	58 863 869	19.723 0829	7.299 8936	.002 570 694
390	15 21 00	59 319 000	19.748 4177	7.306 1436	.002 564 103
391	15 28 81	59 776 471	19.773 7199	7.312 3828	.002 557 545
392	15 36 64	60 236 288	19.798 9899	7.318 6114	.002 551 020
393	15 44 49	60 698 457	19.824 2276	7.324 8295	.002 544 529
394	15 52 36	61 162 984	19.849 4332	7.331 0369	.002 538 071
395	15 60 25	61 629 875	19.874 6069	7.337 2339	.002 531 646
396	15 68 16	62 099 136	19.899 7487	7.343 4205	.002 525 253
397	15 76 09	62 570 773	19.924 8588	7.349 5966	.002 518 892
398	15 84 04	63 044 792	19.949 9373	7.355 7624	.022 512 563
399	15 92 01	63 521 199	19.974 9844	7.361 9178	.002 506 266
400	16 00 00	64 000 000	20.000 0000	7.368 0630	.002 500 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
401	16 08 01	64 481 201	20.024 9844	7.374 1979	.002 493 766
402	16 16 04	64 964 808	20.049 9377	7.380 3227	.002 487 562
403	16 24 09	65 450 827	20.074 8599	7.386 4373	.002 481 390
404	16 32 16	65 939 264	20.099 7512	7.392 5418	.002 475 248
405	16 40 25	66 430 125	20.124 6118	7.398 6363	.002 469 136
406	16 48 36	66 923 416	20.149 4417	7.404 7206	.002 463 054
407	16 56 49	67 419 143	20.174 2410	7.410 7950	.002 457 002
408	16 64 64	67 917 312	20.199 0099	7.416 8595	.002 450 980
409	16 72 81	68 417 929	20.223 7484	7.422 9142	.002 444 988
410	16 81 00	68 921 000	20.248 4567	7.428 9589	.002 439 024
411	16 89 21	69 426 531	20.273 1349	7.434 9938	.002 433 090
412	16 97 44	69 934 528	20.297 7831	7.441 0189	.002 427 184
413	17 05 69	70 444 997	20.322 4014	7.447 0342	.002 421 308
414	17 13 96	70 957 944	20.346 9899	7.453 0399	.002 415 459
415	17 22 25	71 473 375	20.371 5488	7.459 0359	.002 409 639
416	17 30 56	71 991 296	20.396 0781	7.465 0223	.002 403 846
417	17 38 89	72 511 713	20.420 5779	7.470 9991	.002 398 082
418	17 47 24	73 034 632	20.445 0483	7.476 9664	.002 392 344
419	17 55 61	73 560 059	20.469 4895	7.482 9242	.002 386 635
420	17 64 00	74 088 000	20.493 9015	7.488 8724	.002 380 952
421	17 72 41	74 618 461	20.518 2845	7.494 8113	.002 375 297
422	17 80 84	75 151 448	20.542 6386	7.500 7406	.002 369 668
423	17 89 29	75 686 967	20.566 9638	7.506 6607	.002 364 066
424	17 97 76	76 225 024	20.591 2603	7.512 5715	.002 358 491
425	18 06 25	76 765 625	20.615 5281	7.518 4730	.002 352 941
426	18 14 76	77 308 776	20.639 7674	7.524 3652	.002 347 418
427	18 23 29	77 854 483	20.663 9783	7.530 2482	.002 341 920
428	18 31 84	78 402 752	20.688 1609	7.536 1221	.002 336 449
429	18 40 41	78 953 589	20.712 3152	7.541 9867	.002 331 002
430	18 49 00	79 507 000	20.736 4414	7.547 8423	.002 325 581
431	18 57 61	80 062 991	20.760 5395	7.553 6888	.002 320 186
432	18 66 24	80 621 568	20.784 6097	7.559 5263	.002 314 815
433	18 74 89	81 182 737	20.808 6520	7.565 3548	.002 309 469
434	18 83 56	81 746 504	20.832 6667	7.571 1743	.002 304 147
435	18 92 25	82 312 875	20.856 6536	7.576 9849	.002 298 851
436	19 00 96	82 881 856	20.880 6130	7.582 7865	.002 293 578
437	19 09 69	83 453 453	20.904 5450	7.588 5793	.002 288 330
438	19 18 44	84 027 672	20.928 4495	7.594 3633	.002 283 105
439	19 27 21	84 604 519	20.952 3268	7.600 1385	.002 277 904
440	19 36 00	85 184 000	20.976 1770	7.605 9049	.002 272 727
441	19 44 81	85 766 121	21.000 0000	7.611 6626	.002 267 574
442	19 53 64	86 350 888	21.023 7960	7.617 4116	.002 262 443
443	19 62 49	86 938 307	21.047 5652	7.623 1519	.002 257 336
444	19 71 36	87 528 384	21.071 3075	7.628 8837	.002 252 252
445	19 80 25	88 121 125	21.095 0231	7.634 6067	.002 247 191
446	19 89 16	88 716 536	21.118 7121	7.640 3213	.002 242 152
447	19 98 09	89 314 623	21.142 3745	7.646 0272	.002 237 136
448	20 07 04	89 915 392	21.166 0105	7.651 7247	.002 232 143
449	20 16 01	90 518 849	21.189 6201	7.657 4138	.002 227 171
450	20 25 00	91 125 000	21.213 2034	7.663 0943	.002 222 222

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
451	20 34 01	91 733 851	21.236 7606	7.668 7665	.002 217 295
452	20 43 04	92 345 408	21.260 2916	7.674 4303	.002 212 389
453	20 52 09	92 959 677	21.283 7967	7.680 0857	.002 207 506
454	20 61 16	93 576 664	21.307 2758	7.685 7328	.002 202 643
455	20 70 25	94 196 375	21.330 7290	7.691 3717	.002 197 802
456	20 79 36	94 818 816	21.354 1565	7.697 0023	.002 192 982
457	20 88 49	95 443 993	21.377 5583	7.702 6246	.002 188 184
458	20 97 64	96 071 912	21.400 9346	7.708 2388	.002 183 406
459	21 06 81	96 702 579	21.424 2853	7.713 8448	.002 178 649
460	21 16 00	97 336 000	21.447 6106	7.719 4426	.002 173 913
461	21 25 21	97 972 181	21.470 9106	7.725 0325	.002 169 197
462	21 34 44	98 611 128	21.494 1853	7.730 6141	.002 164 502
463	21 43 69	99 252 847	21.517 4348	7.736 1877	.002 159 827
464	21 52 96	99 897 344	21.540 6592	7.741 7532	.002 155 172
465	21 62 25	100 544 625	21.563 8587	7.747 3109	.002 150 538
466	21 71 56	101 194 696	21.587 0331	7.752 8606	.002 145 923
467	21 80 89	101 847 563	21.610 1828	7.758 4023	.002 141 328
468	21 90 24	102 503 232	21.633 3077	7.763 9361	.002 136 752
469	21 99 61	103 161 709	21.656 4078	7.769 4620	.002 132 196
470	22 09 00	103 823 000	21.679 4834	7.774 9801	.002 127 660
471	22 18 41	104 487 111	21.702 5344	7.780 4904	.002 123 142
472	22 27 84	105 154 048	21.725 5610	7.785 9928	.002 118 644
473	22 37 29	105 823 817	21.748 5632	7.791 4875	.002 114 165
474	22 46 76	106 496 424	21.771 5411	7.796 9745	.002 109 705
475	22 56 25	107 171 875	21.794 4947	7.802 4538	.002 105 263
476	22 65 76	107 850 176	21.817 4242	7.807 9254	.002 100 840
477	22 75 29	108 531 333	21.840 3297	7.813 3892	.002 096 436
478	22 84 84	109 215 352	21.863 2111	7.818 8456	.002 092 050
479	22 94 41	109 902 239	21.886 0686	7.824 2942	.002 087 683
480	23 04 00	110 592 000	21.908 9023	7.829 7353	.002 083 333
481	23 13 61	111 284 641	21.931 7122	7.835 1688	.002 079 002
482	23 23 24	111 980 168	21.954 4984	7.840 5949	.002 074 689
483	23 32 89	112 678 587	21.977 2610	7.846 0134	.002 070 393
484	23 42 56	113 379 904	22.000 0000	7.851 4244	.002 066 116
485	23 52 25	114 084 125	22.022 7155	7.856 8281	.002 061 856
486	23 61 96	114 791 256	22.045 4077	7.862 2242	.002 057 613
487	23 71 69	115 501 303	22.068 0765	7.867 6130	.002 053 388
488	23 81 44	116 214 272	22.090 7220	7.872 9944	.002 049 180
489	23 91 21	116 930 169	22.113 3444	7.878 3684	.002 044 990
490	24 01 00	117 649 000	22.135 9436	7.883 7352	.002 040 816
491	24 10 81	118 370 771	22.158 5198	7.889 0946	.002 036 660
492	24 20 64	119 095 488	22.181 0730	7.894 4468	.002 032 520
493	24 30 49	119 823 157	22.203 6033	7.899 7917	.002 028 398
494	24 40 36	120 553 784	22.226 1108	7.905 1294	.002 024 291
495	24 50 25	121 287 375	22.248 5955	7.910 4599	.002 020 202
496	24 60 16	122 023 936	22.271 0575	7.915 7832	.002 016 129
497	24 70 09	122 763 473	22.293 4968	7.921 0994	.002 012 072
498	24 80 04	123 505 992	22.315 9136	7.926 4085	.002 008 032
499	24 90 01	124 251 499	22.338 3079	7.931 7104	.002 004 008
500	25 00 00	125 000 000	22.360 6798	7.937 0053	.002 000 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
501	25 10 01	125 751 501	22.383 0293	7.942 2931	.001 996 008
502	25 20 04	126 506 008	22.405 3565	7.947 5739	.001 992 032
503	25 30 09	127 263 527	22.427 6615	7.952 8477	.001 988 072
504	25 40 16	128 024 064	22.449 9443	7.958 1144	.001 984 127
505	25 50 25	128 787 625	22.472 2051	7.963 3743	.001 980 198
506	25 60 36	129 554 216	22.494 4438	7.968 6271	.001 976 285
507	25 70 49	130 323 843	22.516 6605	7.973 8731	.001 972 387
508	25 80 64	131 096 512	22.538 8553	7.979 1122	.001 968 504
509	25 90 81	131 872 229	22.561 0283	7.984 3444	.001 964 637
510	26 01 00	132 651 000	22.583 1796	7.989 5697	.001 960 784
511	26 11 21	133 432 831	22.605 3091	7.994 7883	.001 956 947
512	26 21 44	134 217 728	22.627 4170	8.000 0000	.001 953 125
513	26 31 69	135 005 697	22.649 5033	8.005 2049	.001 949 318
514	26 41 96	135 796 744	22.671 5681	8.010 4032	.001 945 525
515	26 52 25	136 590 875	22.693 6114	8.015 5946	.001 941 748
516	26 62 56	137 388 096	22.715 6334	8.020 7794	.001 937 984
517	26 72 89	138 188 413	22.737 6340	8.025 9574	.001 934 236
518	26 83 24	138 991 832	22.759 6134	8.031 1287	.001 930 502
519	26 93 61	139 798 359	22.781 5715	8.036 2935	.001 926 782
520	27 04 00	140 608 000	22.803 5085	8.041 4515	.001 923 077
521	27 14 41	141 420 761	22.825 4244	8.046 6030	.001 919 386
522	27 24 84	142 236 648	22.847 3193	8.051 7479	.001 915 709
523	27 35 29	143 055 667	22.869 1933	8.056 8862	.001 912 046
524	27 45 76	143 877 824	22.891 0463	8.062 0180	.001 908 397
525	27 56 25	144 703 125	22.912 8785	8.067 1432	.001 904 762
526	27 66 76	145 531 576	22.934 6899	8.072 2620	.001 901 141
527	27 77 29	146 363 183	22.956 4806	8.077 3743	.001 897 533
528	27 87 84	147 197 952	22.978 2506	8.082 4800	.001 893 939
529	27 98 41	148 035 889	23.000 0000	8.087 5794	.001 890 359
530	28 09 00	148 877 000	23.021 7289	8.092 6723	.001 886 792
531	28 19 61	149 721 291	23.043 4372	8.097 7589	.001 883 239
532	28 30 24	150 568 768	23.065 1252	8.102 8390	.001 879 699
533	28 40 89	151 419 437	23.086 7928	8.107 9128	.001 876 173
534	28 51 56	152 273 304	23.108 4400	8.112 9803	.001 872 659
535	28 62 25	153 130 375	23.130 0670	8.118 0414	.001 869 159
536	28 72 96	153 990 656	23.151 6738	8.123 0962	.001 865 672
537	28 83 69	154 854 153	23.173 2605	8.128 1447	.001 862 197
538	28 94 44	155 720 872	23.194 8270	8.133 1870	.001 858 736
539	29 05 21	156 590 819	23.216 3735	8.138 2230	.001 855 288
540	29 16 00	157 464 000	23.237 9001	8.143 2529	.001 851 852
541	29 26 81	158 340 421	23.259 4067	8.148 2765	.001 848 429
542	29 37 64	159 220 088	23.280 8935	8.153 2939	.001 845 018
543	29 48 49	160 103 007	23.302 3604	8.158 3051	.001 841 621
544	29 59 36	160 989 184	23.323 8076	8.163 3102	.001 838 235
545	29 70 25	161 878 625	23.345 2351	8.168 3092	.001 834 862
546	29 81 16	162 771 336	23.366 6429	8.173 3020	.001 831 502
547	29 92 09	163 667 323	23.388 0311	8.178 2888	.001 828 154
548	30 03 04	164 566 592	23.409 3998	8.183 2695	.001 824 818
549	30 14 01	165 469 149	23.430 7490	8.188 2441	.001 821 494
550	30 25 00	166 375 000	23.452 0788	8.193 2127	.001 818 182

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
551	30 36 01	167 284 151	23.473 3892	8.198 1753	.001 814 882
552	30 47 04	168 196 608	23.494 6802	8.203 1319	.001 811 594
553	30 58 09	169 112 377	23.515 9520	8.208 0825	.001 808 318
554	30 69 16	170 031 464	23.537 2046	8.213 0271	.001 805 054
555	30 80 25	170 953 875	23.558 4380	8.217 9657	.001 801 802
556	30 91 36	171 879 616	23.579 6522	8.222 8985	.001 798 561
557	31 02 49	172 808 693	23.600 8474	8.227 8254	.001 795 332
558	31 13 64	173 741 112	23.622 0236	8.232 7463	.001 792 115
559	31 24 81	174 676 879	23.643 1808	8.237 6614	.001 788 909
560	31 36 00	175 616 000	23.664 3191	8.242 5706	.001 785 714
561	31 47 21	176 558 481	23.685 4386	8.247 4740	.001 782 531
562	31 58 44	177 504 328	23.706 5392	8.252 3715	.001 779 359
563	31 69 69	178 453 547	23.727 6210	8.257 2633	.001 776 199
564	31 80 96	179 406 144	23.748 6842	8.262 1492	.001 773 050
565	31 92 25	180 362 125	23.769 7286	8.267 0294	.001 769 912
566	32 03 56	181 321 496	23.790 7545	8.271 9039	.001 766 784
567	32 14 89	182 284 263	23.811 7618	8.276 7726	.001 763 668
568	32 26 24	183 250 432	23.832 7506	8.281 6355	.001 760 563
569	32 37 61	184 220 009	23.853 7209	8.286 4928	.001 757 469
570	32 49 00	185 193 000	23.874 6728	8.291 3444	.001 754 386
571	32 60 41	186 169 411	23.895 6063	8.296 1903	.001 751 313
572	32 71 84	187 149 248	23.916 5304	8.301 0304	.001 748 252
573	32 83 29	188 132 517	23.937 4184	8.305 8651	.001 745 201
574	32 94 76	189 119 224	23.958 2971	8.310 6941	.001 742 160
575	33 06 25	190 109 375	23.979 1576	8.315 5175	.001 739 130
576	33 17 76	191 102 976	24.000 0000	8.320 3353	.001 736 111
577	33 29 29	192 100 033	24.020 8243	8.325 1475	.001 733 102
578	33 40 84	193 100 552	24.041 6306	8.329 9542	.001 730 104
579	33 52 41	194 104 539	24.062 4188	8.334 7553	.001 727 116
580	33 64 00	195 112 000	24.083 1891	8.339 5509	.001 724 138
581	33 75 61	196 122 941	24.103 9416	8.344 3410	.001 721 170
582	33 87 24	197 137 368	24.124 6762	8.349 1256	.001 718 213
583	33 98 89	198 155 287	24.145 3929	8.353 9047	.001 715 266
584	34 10 56	199 176 704	24.166 0919	8.358 6784	.001 712 329
585	34 22 25	200 201 625	24.186 7732	8.363 4466	.001 709 402
586	34 33 96	201 230 056	24.207 4369	8.368 2095	.001 706 485
587	34 45 69	202 262 003	24.228 0829	8.372 9668	.001 703 578
588	34 57 44	203 297 472	24.248 7113	8.377 7188	.001 700 680
589	34 69 21	204 336 469	24.269 3222	8.382 4653	.001 697 793
590	34 81 00	205 379 000	24.289 9156	8.387 2065	.001 694 915
591	34 92 81	206 425 071	24.310 4916	8.391 9423	.001 692 047
592	35 04 64	207 474 688	24.331 0501	8.396 6729	.001 689 189
593	35 16 49	208 527 857	24.351 5913	8.401 3981	.001 686 341
594	35 28 36	209 584 584	24.372 1152	8.406 1180	.001 683 502
595	35 40 25	210 644 875	24.392 6218	8.410 8326	.001 680 672
596	35 52 16	211 708 736	24.413 1112	8.415 5419	.001 677 852
597	35 64 09	212 776 173	24.433 5834	8.420 2460	.001 675 042
598	35 76 04	213 847 192	24.454 0385	8.424 9448	.001 672 241
599	35 88 01	214 921 799	24.474 4765	8.429 6383	.001 669 449
600	36 00 00	216 000 000	24.494 8974	8.434 3267	.001 666 667

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
601	36 12 01	217 081 801	24.515 3013	8.439 0098	.001 663 894
602	36 24 04	218 167 208	24.535 6883	8.443 6877	.001 661 130
603	36 36 09	219 256 227	24.556 0583	8.448 3605	.001 658 375
604	36 48 16	220 348 864	24.576 4115	8.453 0281	.001 655 629
605	36 60 25	221 445 125	24.596 7478	8.457 6906	.001 652 893
606	36 72 36	222 545 016	24.617 0673	8.462 3479	.001 650 165
607	36 84 49	223 648 543	24.637 3700	8.467 0000	.001 647 446
608	36 96 64	224 755 712	24.657 6560	8.471 6471	.001 644 737
609	37 08 81	225 866 529	24.677 9254	8.476 2892	.001 642 036
610	37 21 00	226 981 000	24.698 1781	8.480 9261	.001 639 344
611	37 33 21	228 099 131	24.718 4142	8.485 5579	.001 636 661
612	37 45 44	229 220 928	24.738 6338	8.490 1848	.001 633 987
613	37 57 69	230 346 397	24.758 8368	8.494 8065	.001 631 321
614	37 69 96	231 475 544	24.779 0234	8.499 4233	.001 628 664
615	37 82 25	232 608 375	24.799 1935	8.504 0350	.001 626 016
616	37 94 56	233 744 896	24.819 3473	8.508 6417	.001 623 377
617	38 06 89	234 885 113	24.839 4847	8.513 2435	.001 620 746
618	38 19 24	236 029 032	24.859 6058	8.517 8403	.001 618 123
619	38 31 61	237 176 659	24.879 7106	8.522 4321	.001 615 509
620	38 44 00	238 328 000	24.899 7992	8.527 0189	.001 612 903
621	38 56 41	239 483 061	24.919 8716	8.531 6009	.001 610 306
622	38 68 84	240 641 848	24.939 9278	8.536 1780	.001 607 717
623	38 81 29	241 804 367	24.959 9679	8.540 7501	.001 605 136
624	38 93 76	242 970 624	24.979 9920	8.545 3173	.001 602 564
625	39 06 25	244 140 625	25.000 0000	8.549 8797	.001 600 000
626	39 18 76	245 314 376	25.019 9920	8.554 4372	.001 597 444
627	39 31 29	246 491 883	25.039 9681	8.558 9899	.001 594 896
628	39 43 84	247 673 152	25.059 9282	8.563 5377	.001 592 357
629	39 56 41	248 858 189	25.079 8724	8.568 0807	.001 589 825
630	39 69 00	250 047 000	25.099 8008	8.572 6189	.001 587 302
631	39 81 61	251 239 591	25.119 7134	8.577 1523	.001 584 786
632	39 94 24	252 435 968	25.139 6102	8.581 6809	.001 582 278
633	40 06 89	253 636 137	25.159 4913	8.586 2047	.001 579 779
634	40 19 56	254 840 104	25.179 3566	8.590 7238	.001 577 287
635	40 32 25	256 047 875	25.199 2063	8.595 2380	.001 574 803
636	40 44 96	257 259 456	25.219 0404	8.599 7476	.001 572 327
637	40 57 69	258 474 853	25.238 8589	8.604 2525	.001 569 859
638	40 70 44	259 694 072	25.258 6619	8.608 7526	.001 567 398
639	40 83 21	260 917 119	25.278 4493	8.613 2480	.001 564 945
640	40 96 00	262 144 000	25.298 2213	8.617 7388	.001 562 500
641	41 08 81	263 374 721	25.317 9778	8.622 2248	.001 560 062
642	41 21 64	264 609 288	25.337 7189	8.626 7063	.001 557 632
643	41 34 49	265 847 707	25.357 4447	8.631 1830	.001 555 210
644	41 47 36	267 089 984	25.377 1551	8.635 6551	.001 552 795
645	41 60 25	268 336 125	25.396 8502	8.640 1226	.001 550 388
646	41 73 16	269 586 136	25.416 5301	8.644 5855	.001 547 988
647	41 86 09	270 840 023	25.436 1947	8.649 0437	.001 545 595
648	41 99 04	272 097 792	25.455 8441	8.653 4974	.001 543 210
649	42 12 01	273 359 449	25.475 4784	8.657 9465	.001 540 832
650	42 25 00	274 625 000	25.495 0976	8.662 3911	.001 538 462

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
651	42 38 01	275 894 451	25.514 7016	8.666 8310	.001 536 098
652	42 51 04	277 167 808	25.534 2907	8.671 2665	.001 533 742
653	42 64 09	278 445 077	25.553 8647	8.675 6974	.001 531 394
654	42 77 16	279 726 264	25.573 4237	8.680 1237	.001 529 052
655	42 90 25	281 011 375	25.592 9678	8.684 5456	.001 526 718
656	43 03 36	282 300 416	25.612 4969	8.688 9630	.001 524 390
657	43 16 49	283 593 393	25.632 0112	8.693 3759	.001 522 070
658	43 29 64	284 890 312	25.651 5107	8.697 7843	.001 519 757
659	43 42 81	286 191 179	25.670 9953	8.702 1882	.001 517 451
660	43 56 00	287 496 000	25.690 4652	8.706 5877	.001 515 152
661	43 69 21	288 804 781	25.709 9203	8.710 9827	.001 512 859
662	43 82 44	290 117 528	25.729 3607	8.715 3734	.001 510 574
663	43 95 69	291 434 247	25.748 7864	8.719 7596	.001 508 296
664	44 08 96	292 754 944	25.768 1975	8.724 1414	.001 506 024
665	44 22 25	294 079 625	25.787 5939	8.728 5187	.001 503 759
666	44 35 56	295 408 296	25.806 9758	8.732 8918	.001 501 502
667	44 48 89	296 740 963	25.826 3431	8.737 2604	.001 499 250
668	44 62 24	298 077 632	25.845 6960	8.741 6246	.001 497 006
669	44 75 61	299 418 309	25.865 0343	8.745 9846	.001 494 768
670	44 89 00	300 763 000	25.884 3582	8.750 3401	.001 492 537
671	45 02 41	302 111 711	25.903 6677	8.754 6913	.001 490 313
672	45 15 84	303 464 448	25.922 9628	8.759 0383	.001 488 095
673	45 29 29	304 821 217	25.942 2435	8.763 3809	.001 485 884
674	45 42 76	306 182 024	25.961 5100	8.767 7192	.001 483 680
675	45 56 25	307 546 875	25.980 7621	8.772 0532	.001 481 481
676	45 69 76	308 915 776	26.000 0000	8.776 3830	.001 479 290
677	45 83 29	310 288 733	26.019 2237	8.780 7084	.001 477 105
678	45 96 84	311 665 752	26.038 4331	8.785 0296	.001 474 926
679	46 10 41	313 046 839	26.057 6284	8.789 3466	.001 472 754
680	46 24 00	314 432 000	26.076 8096	8.793 6593	.001 470 588
681	46 37 61	315 821 241	26.095 9767	8.797 9679	.001 468 429
682	46 51 24	317 214 568	26.115 1297	8.802 2721	.001 466 276
683	46 64 89	318 611 987	26.134 2687	8.806 5722	.001 464 129
684	46 78 56	320 013 504	26.153 3937	8.810 8681	.001 461 988
685	46 92 25	321 419 125	26.172 5047	8.815 1598	.001 459 854
686	47 05 96	322 828 856	26.191 6017	8.819 4474	.001 457 726
687	47 19 69	324 242 703	26.210 6848	8.823 7307	.001 455 604
688	47 33 44	325 660 672	26.229 7541	8.828 0099	.001 453 488
689	47 47 21	327 082 769	26.248 8095	8.832 2850	.001 451 379
690	47 61 00	328 509 000	26.267 8511	8.836 5559	.001 449 275
691	47 74 81	329 939 371	26.286 8789	8.840 8227	.001 447 178
692	47 88 64	331 373 888	26.305 8929	8.845 0854	.001 445 087
693	48 02 49	332 812 557	26.324 8932	8.849 3440	.001 443 001
694	48 16 36	334 255 384	26.343 8797	8.853 5985	.001 440 922
695	48 30 25	335 702 375	26.362 8527	8.857 8489	.001 438 849
696	48 44 16	337 153 536	26.381 8119	8.862 0952	.001 436 782
697	48 58 09	338 608 873	26.400 7576	8.866 3375	.001 434 720
698	48 72 04	340 068 392	26.419 6896	8.870 5757	.001 432 665
699	48 86 01	341 532 099	26.438 6081	8.874 8099	.001 430 615
700	49 00 00	343 000 000	26.457 5131	8.879 0400	.001 428 571

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
701	49 14 01	344 472 101	26.476 4046	8.883 2661	.001 426 534
702	49 28 04	345 948 408	26.495 2826	8.887 4882	.001 424 501
703	49 42 09	347 428 927	26.514 1472	8.891 7063	.001 422 475
704	49 56 16	348 913 664	26.532 9983	8.895 9204	.001 420 455
705	49 70 25	350 402 625	26.551 8361	8.900 1304	.001 418 440
706	49 84 36	351 895 816	26.570 6605	8.904 3366	.001 416 431
707	49 98 49	353 393 243	26.589 4716	8.908 5387	.001 414 427
708	50 12 64	354 894 912	26.608 2694	8.912 7369	.001 412 429
709	50 26 81	356 400 829	26.627 0539	8.916 9311	.001 410 437
710	50 41 00	357 911 000	26.645 8252	8.921 1214	.001 408 451
711	50 55 21	359 425 431	26.664 5833	8.925 3078	.001 406 470
712	50 69 44	360 944 128	26.683 3281	8.929 4902	.001 404 494
713	50 83 69	362 467 097	26.702 0598	8.933 6687	.001 402 525
714	50 97 96	363 994 344	26.720 7784	8.937 8433	.001 400 560
715	51 12 25	365 525 875	26.739 4839	8.942 0140	.001 398 601
716	51 26 56	367 061 696	26.758 1763	8.946 1809	.001 396 648
717	51 40 89	368 601 813	26.776 8557	8.950 3438	.001 394 700
718	51 55 24	370 146 232	26.795 5220	8.954 5029	.001 392 758
719	51 69 61	371 694 959	26.814 1754	8.958 6581	.001 390 821
720	51 84 00	373 248 000	26.832 8157	8.962 8095	.001 388 889
721	51 98 41	374 805 361	26.851 4432	8.966 9570	.001 386 963
722	52 12 84	376 367 048	26.870 0577	8.971 1007	.001 385 042
723	52 27 29	377 933 067	26.888 6593	8.975 2406	.001 383 126
724	52 41 76	379 503 424	26.907 2481	8.979 3766	.001 381 215
725	52 56 25	381 078 125	26.925 8240	8.983 5089	.001 379 310
726	52 70 76	382 657 176	26.944 3872	8.987 6373	.001 377 410
727	52 85 29	384 240 583	26.962 9375	8.991 7620	.001 375 516
728	52 99 84	385 828 352	26.981 4751	8.995 8829	.001 373 626
729	53 14 41	387 420 489	27.000 0000	9.000 0000	.001 371 742
730	53 29 00	389 017 000	27.018 5122	9.004 1134	.001 369 863
731	53 43 61	390 617 891	27.037 0117	9.008 2229	.001 367 989
732	53 58 24	392 223 168	27.055 4985	9.012 3288	.001 366 120
733	53 72 89	393 832 837	27.073 9727	9.016 4309	.001 364 256
734	53 87 56	395 446 904	27.092 4344	9.020 5293	.001 362 398
735	54 02 25	397 065 375	27.110 8834	9.024 6239	.001 360 544
736	54 16 96	398 688 256	27.129 3199	9.028 7149	.001 358 696
737	54 31 69	400 315 553	27.147 7439	9.032 8021	.001 356 852
738	54 46 44	401 947 272	27.166 1554	9.036 8857	.001 355 014
739	54 61 21	403 583 419	27.184 5544	9.040 9655	.001 353 180
740	54 76 00	405 224 000	27.202 9410	9.045 0417	.001 351 351
741	54 90 81	406 869 021	27.221 3152	9.049 1142	.001 349 528
742	55 05 64	408 518 488	27.239 6769	9.053 1831	.001 347 709
743	55 20 49	410 172 407	27.258 0263	9.057 2482	.001 345 895
744	55 35 36	411 830 784	27.276 3634	9.061 3098	.001 344 086
745	55 50 25	413 493 625	27.294 6881	9.065 3677	.001 342 282
746	55 65 16	415 160 936	27.313 0006	9.069 4220	.001 340 483
747	55 80 09	416 832 723	27.331 3007	9.073 4726	.001 338 688
748	55 95 04	418 508 992	27.349 5887	9.077 5197	.001 336 898
749	56 10 01	420 189 749	27.367 8644	9.081 5631	.001 335 113
750	56 25 00	421 875 000	27.386 1279	9.085 6030	.001 333 333

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
751	56 40 01	423 564 751	27.404 3792	9.089 6392	.001 331 558
752	56 55 04	425 259 008	27.422 6184	9.093 6719	.001 329 787
753	56 70 09	426 957 777	27.440 8455	9.097 7010	.001 328 021
754	56 85 16	428 661 064	27.459 0604	9.101 7265	.001 326 260
755	57 00 25	430 368 875	27.477 2633	9.105 7485	.001 324 503
756	57 15 36	432 081 216	27.495 4542	9.109 7669	.001 322 751
757	57 30 49	433 798 093	27.513 6330	9.113 7818	.001 321 004
758	57 45 64	435 519 512	27.531 7998	9.117 7931	.001 319 261
759	57 60 81	437 245 479	27.549 9546	9.121 8010	.001 317 523
760	57 76 00	438 976 000	27.568 0975	9.125 8053	.001 315 789
761	57 91 21	440 711 081	27.586 2284	9.129 8061	.001 314 060
762	58 06 44	442 450 728	27.604 3475	9.133 8034	.001 312 336
763	58 21 69	444 194 947	27.622 4546	9.137 7971	.001 310 616
764	58 36 96	445 943 744	27.640 5499	9.141 7874	.001 308 901
765	58 52 25	447 697 125	27.658 6334	9.145 7742	.001 307 190
766	58 67 56	449 455 096	27.676 7050	9.149 7576	.001 305 483
767	58 82 89	451 217 663	27.694 7648	9.153 7375	.001 303 781
768	58 98 24	452 984 832	27.712 8129	9.157 7139	.001 302 083
769	59 13 61	454 756 609	27.730 8492	9.161 6869	.001 300 390
770	59 29 00	456 533 000	27.748 8739	9.165 6565	.001 298 701
771	59 44 41	458 314 011	27.766 8868	9.169 6225	.001 297 017
772	59 59 84	460 099 648	27.784 8880	9.173 5852	.001 295 337
773	59 75 29	461 889 917	27.802 8775	9.177 5445	.001 293 661
774	59 90 76	463 684 824	27.820 8555	9.181 5003	.001 291 990
775	60 06 25	465 484 375	27.838 8218	9.185 4527	.001 290 323
776	60 21 76	467 288 576	27.856 7766	9.189 4018	.001 288 660
777	60 37 29	469 097 433	27.874 7197	9.193 3474	.001 287 001
778	60 52 84	470 910 952	27.892 6514	9.197 2897	.001 285 347
779	60 68 41	472 729 139	27.910 5715	9.201 2286	.001 283 697
780	60 84 00	474 552 000	27.928 4801	9.205 1641	.001 282 051
781	60 99 61	476 379 541	27.946 3772	9.209 0962	.001 280 410
782	61 15 24	478 211 768	27.964 2629	9.213 0250	.001 278 772
783	61 30 89	480 048 687	27.982 1372	9.216 9505	.001 277 139
784	61 46 56	481 890 304	28.000 0000	9.220 8726	.001 275 510
785	61 62 25	483 736 625	28.017 8515	9.224 7914	.001 273 885
786	61 77 96	485 587 656	28.035 6915	9.228 7068	.001 272 265
787	61 93 69	487 443 403	28.053 5203	9.232 6189	.001 270 648
788	62 09 44	489 303 872	28.071 3377	9.236 5277	.001 269 036
789	62 25 21	491 169 069	28.089 1438	9.240 4333	.001 267 427
790	62 41 00	493 039 000	28.106 9386	9.244 3355	.001 265 823
791	62 56 81	494 913 671	28.124 7222	9.248 2344	.001 264 223
792	62 72 64	496 793 088	28.142 4946	9.252 1300	.001 262 626
793	62 88 49	498 677 257	28.160 2557	9.256 0224	.001 261 034
794	63 04 36	500 566 184	28.178 0056	9.259 9114	.001 259 446
795	63 20 25	502 459 875	28.195 7444	9.263 7973	.001 257 862
796	63 36 16	504 358 336	28.213 4720	9.267 6798	.001 256 281
797	63 52 09	506 261 573	28.231 1884	9.271 5592	.001 254 705
798	63 68 04	508 169 592	28.248 8938	9.275 4352	.001 253 133
799	63 84 01	510 082 399	28.266 5881	9.279 3081	.001 251 564
800	64 00 00	512 000 000	28.284 2712	9.283 1777	.001 250 000

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
801	64 16 01	513 922 401	28.301 9434	9.287 0440	.001 248 439
802	64 32 04	515 849 608	28.319 6045	9.290 9072	.001 246 883
803	64 48 09	517 781 627	28.337 2546	9.294 7671	.001 245 330
804	64 64 16	519 718 464	28.354 8938	9.298 6239	.001 243 781
805	64 80 25	521 660 125	28.372 5219	9.302 4775	.001 242 236
806	64 96 36	523 606 616	28.390 1391	9.306 3278	.001 240 695
807	65 12 49	525 557 943	28.407 7454	9.310 1750	.001 239 157
808	65 28 64	527 514 112	28.425 3408	9.314 0190	.001 237 624
809	65 44 81	529 475 129	28.442 9253	9.317 8599	.001 236 094
810	65 61 00	531 441 000	28.460 4989	9.321 6975	.001 234 568
811	65 77 21	533 411 731	28.478 0617	9.325 5320	.001 233 046
812	65 93 44	535 387 328	28.495 6137	9.329 3634	.001 231 527
813	66 09 69	537 367 797	28.513 1549	9.333 1916	.001 230 012
814	66 25 96	539 353 144	28.530 6852	9.337 0167	.001 228 501
815	66 42 25	541 343 375	28.548 2048	9.340 8386	.001 226 994
816	66 58 56	543 338 496	28.565 7137	9.344 6575	.001 225 490
817	66 74 89	545 338 513	28.583 2119	9.348 4731	.001 223 990
818	66 91 24	547 343 432	28.600 6993	9.352 2857	.001 222 494
819	67 07 61	549 353 259	28.618 1760	9.356 0952	.001 221 001
820	67 24 00	551 368 000	28.635 6421	9.359 9016	.001 219 512
821	67 40 41	553 387 661	28.653 0976	9.363 7049	.001 218 027
822	67 56 84	555 412 248	28.670 5424	9.367 5051	.001 216 545
823	67 73 29	557 441 767	28.687 9766	9.371 3022	.001 215 067
824	67 89 76	559 476 224	28.705 4002	9.375 0963	.001 213 592
825	68 06 25	561 515 625	28.722 8132	9.378 8873	.001 212 121
826	68 22 76	563 559 976	28.740 2157	9.382 6752	.001 210 654
827	68 39 29	565 609 283	28.757 6077	9.386 4600	.001 209 190
828	68 55 84	567 663 552	28.774 9891	9.390 2419	.001 207 729
829	68 72 41	569 722 789	28.792 3601	9.394 0206	.001 206 273
830	68 89 00	571 787 000	28.809 7206	9.397 7964	.001 204 819
831	69 05 61	573 856 191	28.827 0706	9.401 5691	.001 203 369
832	69 22 24	575 930 368	28.844 4102	9.405 3387	.001 201 923
833	69 38 89	578 009 537	28.861 7394	9.409 1054	.001 200 480
834	69 55 56	580 093 704	28.879 0582	9.412 8690	.001 199 041
835	69 72 25	582 182 875	28.896 3666	9.416 6297	.001 197 605
836	69 88 96	584 277 056	28.913 6646	9.420 3873	.001 196 172
837	70 05 69	586 376 253	28.930 9523	9.424 1420	.001 194 743
838	70 22 44	588 480 472	28.948 2297	9.427 8936	.001 193 317
839	70 39 21	590 589 719	28.965 4967	9.431 6423	.001 191 895
840	70 56 00	592 704 000	28.982 7535	9.435 3880	.001 190 476
841	70 72 81	594 823 321	29.000 0000	9.439 1307	.001 189 061
842	70 89 64	596 947 688	29.017 2363	9.442 8704	.001 187 648
843	71 06 49	599 077 107	29.034 4623	9.446 6072	.001 186 240
844	71 23 36	601 211 584	29.051 6781	9.450 3410	.001 184 834
845	71 40 25	603 351 125	29.068 8837	9.454 0719	.001 183 432
846	71 57 16	605 495 736	29.086 0791	9.457 7999	.001 182 033
847	71 74 09	607 645 423	29.103 2644	9.461 5249	.011 180 638
848	71 91 04	609 800 192	29.120 4396	9.465 2470	.001 179 245
849	72 08 01	611 960 049	29.137 6046	9.468 9661	.001 177 856
850	72 25 00	614 125 000	29.154 7595	9.472 6824	.001 176 471

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
851	72 42 01	616 295 051	29.171 9043	9.476 3957	.001 175 088
852	72 59 04	618 470 208	29.189 0390	9.480 1061	.001 173 709
853	72 76 09	620 650 477	29.206 1637	9.483 8136	.001 172 333
854	72 93 16	622 835 864	29.223 2784	9.487 5182	.001 170 960
855	73 10 25	625 026 375	29.240 3830	9.491 2200	.001 169 591
856	73 27 36	627 222 016	29.257 4777	9.494 9188	.001 168 224
857	73 44 49	629 422 793	29.274 5623	9.498 6147	.001 166 861
858	73 61 64	631 628 712	29.291 6370	9.502 3078	.001 165 501
859	73 78 81	633 839 779	29.308 7018	9.505 9980	.001 164 144
860	73 96 00	636 056 000	29.325 7566	9.509 6854	.001 162 791
861	74 13 21	638 277 381	29.342 8015	9.513 3699	.001 161 440
862	74 30 44	640 503 928	29.359 8365	9.517 0515	.001 160 093
863	74 47 69	642 735 647	29.376 8616	9.520 7303	.001 158 749
864	74 64 96	644 972 544	29.393 8769	9.524 4063	.001 157 407
865	74 82 25	647 214 625	29.410 8823	9.528 0794	.001 156 069
866	74 99 56	649 461 896	29.427 8779	9.531 7497	.001 154 734
867	75 16 89	651 714 363	29.444 8637	9.535 4172	.001 153 403
868	75 34 24	653 972 032	29.461 8397	9.539 0818	.001 152 074
869	75 51 61	656 234 909	29.478 8059	9.542 7437	.001 150 748
870	75 69 00	658 503 000	29.495 7624	9.546 4027	.001 149 425
871	75 86 41	660 776 311	29.512 7091	9.550 0589	.001 148 106
872	76 03 84	663 054 848	29.529 6461	9.553 7123	.001 146 789
873	76 21 29	665 338 617	29.546 5734	9.557 3630	.001 145 475
874	76 38 76	667 627 624	29.563 4910	9.561 0108	.001 144 165
875	76 56 25	669 921 875	29.580 3989	9.564 6559	.001 142 857
876	76 73 76	672 221 376	29.597 2972	9.568 2982	.001 141 553
877	76 91 29	674 526 133	29.614 1858	9.571 9377	.001 140 251
878	77 08 84	676 836 152	29.631 0648	9.575 5745	.001 138 952
879	77 26 41	679 151 439	29.647 9342	9.579 2085	.001 137 656
880	77 44 00	681 472 000	29.664 7939	9.582 8397	.001 136 364
881	77 61 61	683 797 841	29.681 6442	9.586 4682	.001 135 074
882	77 79 24	686 128 968	29.698 4848	9.590 0939	.001 133 787
883	77 96 89	688 465 387	29.715 3159	9.593 7169	.001 132 503
884	78 14 56	690 807 104	29.732 1375	9.597 3373	.001 131 222
885	78 32 25	693 154 125	29.748 9496	9.600 9548	.001 129 944
886	78 49 96	695 506 456	29.765 7521	9.604 5696	.001 128 668
887	78 67 69	697 864 103	29.782 5452	9.608 1817	.001 127 396
888	78 85 44	700 227 072	29.799 3289	9.611 7911	.001 126 126
889	79 03 21	702 595 369	29.816 1030	9.615 3977	.001 124 859
890	79 21 00	704 969 000	29.832 8678	9.619 0017	.001 123 596
891	79 38 81	707 347 971	29.849 6231	9.622 6030	.001 122 334
892	79 56 64	709 732 288	29.866 3690	9.626 2016	.001 121 076
893	79 74 49	712 121 957	29.883 1056	9.629 7975	.001 119 821
894	79 92 36	714 516 984	29.899 8328	9.633 3907	.001 118 568
895	80 10 25	716 917 375	29.916 5506	9.636 9812	.001 117 318
896	80 28 16	719 323 136	29.933 2591	9.640 5690	.001 116 071
897	80 46 09	721 734 273	29.949 9583	9.644 1542	.001 114 827
898	80 64 04	724 150 792	29.966 6481	9.647 7367	.001 113 586
899	80 82 01	726 572 699	29.983 3287	9.651 3166	.001 112 347
900	81 00 00	729 000 000	30.000 0000	9.654 8938	.001 111 111

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1,000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
901	81 18 01	731 432 701	30.016 6620	9.658 4684	.001 109 878
902	81 36 04	733 870 808	30.033 3148	9.662 0403	.001 108 647
903	81 54 09	736 314 327	30.049 9584	9.665 6096	.001 107 420
904	81 72 16	738 763 264	30.066 5928	9.669 1762	.001 106 195
905	81 90 25	741 217 625	30.083 2179	9.672 7403	.001 104 972
906	82 08 36	743 677 416	30.099 8339	9.676 3017	.001 103 753
907	82 26 49	746 142 643	30.116 4407	9.679 8604	.001 102 536
908	82 44 64	748 613 312	30.133 0383	9.683 4166	.001 101 322
909	82 62 81	751 089 429	30.149 6269	9.686 9701	.001 100 110
910	82 81 00	753 571 000	30.166 2063	9.690 5211	.001 098 901
911	82 99 21	756 058 031	30.182 7765	9.694 0694	.001 097 695
912	83 17 44	758 550 528	30.199 3377	9.697 6151	.001 096 491
913	83 35 69	761 048 497	30.215 8899	9.701 1583	.001 095 290
914	83 53 96	763 551 944	30.232 4329	9.704 6989	.001 094 092
915	83 72 25	766 060 875	30.248 9669	9.708 2369	.001 092 896
916	83 90 56	768 575 296	30.265 4919	9.711 7723	.001 091 703
917	84 08 89	771 095 213	30.282 0079	9.715 3051	.001 090 513
918	84 27 24	773 620 632	30.298 5148	9.718 8354	.001 089 325
919	84 45 61	776 151 559	30.315 0128	9.722 3631	.001 088 139
920	84 64 00	778 688 000	30.331 5018	9.725 8883	.001 086 957
921	84 82 41	781 229 961	30.347 9818	9.729 4109	.001 085 776
922	85 00 84	783 777 448	30.364 4529	9.732 9309	.001 084 599
923	85 19 29	786 330 467	30.380 9151	9.736 4484	.001 083 424
924	85 37 76	788 889 024	30.397 3683	9.739 9634	.001 082 251
925	85 56 25	791 453 125	30.413 8127	9.743 4758	.001 081 081
926	85 74 76	794 022 776	30.430 2481	9.746 9857	.001 079 914
927	85 93 29	796 597 983	30.446 6747	9.750 4930	.001 078 749
928	86 11 84	799 178 752	30.463 0924	9.753 9979	.001 077 586
929	86 30 41	801 765 089	30.479 5013	9.757 5002	.001 076 426
930	86 49 00	804 357 000	30.495 9014	9.761 0001	.001 075 269
931	86 67 61	806 954 491	30.512 2926	9.764 4974	.001 074 114
932	86 86 24	809 557 568	30.528 6750	9.767 9922	.001 072 961
933	87 04 89	812 166 237	30.545 0487	9.771 4845	.001 071 811
934	87 23 56	814 780 504	30.561 4136	9.774 9743	.001 070 664
935	87 42 25	817 400 375	30.577 7697	9.778 4616	.001 069 519
936	87 60 96	820 025 856	30.594 1171	9.781 9466	.001 068 376
937	87 79 69	822 656 953	30.610 4557	9.785 4288	.001 067 236
938	87 98 44	825 293 672	30.626 7857	9.788 9087	.001 066 098
939	88 17 21	827 936 019	30.643 1069	9.792 3861	.001 064 963
940	88 36 00	830 584 000	30.659 4194	9.795 8611	.001 063 830
941	88 54 81	833 237 621	30.675 7233	9.799 3336	.001 062 699
942	88 73 64	835 896 888	30.692 0185	9.802 8036	.001 061 571
943	88 92 49	838 561 807	30.708 3051	9.806 2711	.001 060 445
944	89 11 36	841 232 384	30.724 5830	9.809 7362	.001 059 322
945	89 30 25	843 908 625	30.740 8523	9.813 1989	.001 058 201
946	89 49 16	846 590 536	30.757 1130	9.816 6591	.001 057 082
947	89 68 09	849 278 123	30.773 3651	9.820 1169	.001 055 966
948	89 87 04	851 971 392	30.789 6086	9.823 5723	.001 054 852
949	90 06 01	854 670 349	30.805 8436	9.827 0252	.001 053 741
950	90 25 00	857 375 000	30.822 0700	9.830 4757	.001 052 632

Squares, Cubes, Square Roots, Cube Roots, and Reciprocals of Integers from 1 to 1,000

n	n^2	n^3	$n^{1/2}$	$n^{1/3}$	$1/n$
951	90 44 01	860 085 351	30.838 2879	9.833 9238	.001 051 525
952	90 63 04	862 801 408	30.854 4972	9.837 3695	.001 050 420
953	90 82 09	865 523 177	30.870 6981	9.840 8127	.001 049 318
954	91 01 16	868 250 664	30.886 8904	9.844 2536	.001 048 218
955	91 20 25	870 983 875	30.903 0743	9.847 6920	.001 047 120
956	91 39 36	873 722 816	30.919 2497	9.851 1280	.001 046 025
957	91 58 49	876 467 493	30.935 4166	9.854 5617	.001 044 932
958	91 77 64	879 217 912	30.951 5751	9.857 9929	.001 043 841
959	91 96 81	881 974 079	30.967 7251	9.861 4218	.001 042 753
960	92 16 00	884 736 000	30.983 8668	9.864 8483	.001 041 667
961	92 35 21	887 503 681	31.000 0000	9.868 2724	.001 040 583
962	92 54 44	890 277 128	31.016 1248	9.871 6941	.001 039 501
963	92 73 69	893 056 347	31.032 2413	9.875 1135	.001 038 422
964	92 92 96	895 841 344	31.048 3494	9.878 5305	.001 037 344
965	93 12 25	898 632 125	31.064 4491	9.881 9451	.001 036 269
966	93 31 56	901 428 696	31.080 5405	9.885 3574	.001 035 197
967	93 50 89	904 231 063	31.096 6236	9.888 7673	.001 034 126
968	93 70 24	907 039 232	31.112 6984	9.892 1749	.001 033 058
969	93 89 61	909 853 209	31.128 7648	9.895 5801	.001 031 992
970	94 09 00	912 673 000	31.144 8230	9.898 9830	.001 030 928
971	94 28 41	915 498 611	31.160 8729	9.902 3835	.001 029 866
972	94 47 84	918 330 048	31.176 9145	9.905 7817	.001 028 807
973	94 67 29	921 167 317	31.192 9479	9.909 1776	.001 027 749
974	94 86 76	924 010 424	31.208 9731	9.912 5712	.001 026 694
975	95 06 25	926 859 375	31.224 9900	9.915 9624	.001 025 641
976	95 25 76	929 714 176	31.240 9987	9.919 3513	.001 024 590
977	95 45 29	932 574 833	31.256 9992	9.922 7379	.001 023 541
978	95 64 84	935 441 352	31.272 9915	9.926 1222	.001 022 495
979	95 84 41	938 313 739	31.288 9757	9.929 5042	.001 021 450
980	96 04 00	941 192 000	31.304 9517	9.932 8839	.001 020 408
981	96 23 61	944 076 141	31.320 9195	9.936 2613	.001 019 368
982	96 43 24	946 966 168	31.336 8792	9.939 6363	.001 018 330
983	96 62 89	949 862 087	31.352 8308	9.943 0092	.001 017 294
984	96 82 56	952 763 904	31.368 7743	9.946 3797	.001 016 260
985	97 02 25	955 671 625	31.384 7097	9.949 7479	.001 015 228
986	97 21 96	958 585 256	31.400 6369	9.953 1138	.001 014 199
987	97 41 69	961 504 803	31.416 5561	9.956 4775	.001 013 171
988	97 61 44	964 430 272	31.432 4673	9.959 8389	.001 012 146
989	97 81 21	967 361 669	31.448 3704	9.963 1981	.001 011 122
990	98 01 00	970 299 000	31.464 2654	9.966 5549	.001 010 101
991	98 20 81	973 242 271	31.480 1525	9.969 9095	.001 009 082
992	98 40 64	976 191 488	31.496 0315	9.973 2619	.001 008 065
993	98 60 49	979 146 657	31.511 9025	9.976 6120	.001 007 049
994	98 80 36	982 107 784	31.527 7655	9.979 9599	.001 006 036
995	99 00 25	985 074 875	31.543 6206	9.983 3055	.001 005 025
996	99 20 16	988 047 936	31.559 4677	9.986 6488	.001 004 016
997	99 40 09	991 026 973	31.575 3068	9.989 9900	.001 003 009
998	99 60 04	994 011 992	31.591 1380	9.993 3289	.001 002 004
999	99 80 01	997 002 999	31.606 9613	9.996 6656	.001 001 001
1000	1 00 00 00	1 000 000 000	31.622 7766	10.000 0000	.001 000 000

Sum of Reciprocals of First n Integers from $n=1$ to $n=450$

$$\Sigma\frac{1}{n} = 1 + \frac{1}{2} + \frac{1}{3} + \cdots\cdots + \frac{1}{n}$$

n	$\Sigma\frac{1}{n}$	n	$\Sigma\frac{1}{n}$	n	$\Sigma\frac{1}{n}$
1	1.000 000 0000	51	4.518 813 1815	101	5.197 278 5077
2	1.500 000 0000	52	4.538 043 9507	102	5.207 082 4293
3	1.833 333 3333	53	4.556 911 8752	103	5.216 791 1672
4	2.083 333 3333	54	4.575 430 3937	104	5.226 406 5518
5	2.283 333 3333	55	4.593 612 2119	105	5.235 930 3613
6	2.450 000 0000	56	4.611 469 3548	106	5.245 364 3236
7	2.592 857 1429	57	4.629 013 2144	107	5.254 710 1180
8	2.717 857 1429	58	4.646 254 5937	108	5.263 969 3772
9	2.828 968 2540	59	4.663 203 7463	109	5.273 143 6892
10	2.928 968 2540	60	4.679 870 4130	110	5.282 234 5982
11	3.019 877 3449	61	4.696 263 8556	111	5.291 243 6073
12	3.103 210 6782	62	4.712 392 8878	112	5.300 172 1787
13	3.180 133 7551	63	4.728 265 9037	113	5.309 021 7362
14	3.251 562 3266	64	4.743 890 9037	114	5.317 793 6660
15	3.318 228 9932	65	4.759 275 5191	115	5.326 489 3182
16	3.380 728 9932	66	4.774 427 0342	116	5.335 110 0079
17	3.439 552 5226	67	4.789 352 4074	117	5.343 657 0164
18	3.495 108 0782	68	4.804 058 2897	118	5.352 131 5927
19	3.547 739 6571	69	4.818 551 0434	119	5.360 534 9540
20	3.597 739 6571	70	4.832 836 7576	120	5.368 868 2874
21	3.645 358 7048	71	4.846 921 2647	121	5.377 132 7502
22	3.690 813 2502	72	4.860 810 1536	122	5.385 329 4715
23	3.734 291 5111	73	4.874 508 7837	123	5.393 459 5528
24	3.775 958 1778	74	4.888 022 2972	124	5.401 524 0689
25	3.815 958 1778	75	4.901 355 6306	125	5.409 524 0689
26	3.854 419 7162	76	4.914 513 5253	126	5.417 460 5768
27	3.891 456 7533	77	4.927 500 5383	127	5.425 334 5926
28	3.927 171 0390	78	4.940 321 0511	128	5.433 147 0926
29	3.961 653 7976	79	4.952 979 2789	129	5.440 899 0306
30	3.994 987 1309	80	4.965 479 2789	130	5.448 591 3383
31	4.027 245 1954	81	4.977 824 9580	131	5.456 224 9261
32	4.058 495 1954	82	4.990 020 0799	132	5.463 800 6836
33	4.088 798 2257	83	5.002 068 2727	133	5.471 319 4806
34	4.118 209 9904	84	5.013 973 0346	134	5.478 782 1672
35	4.146 781 4190	85	5.025 737 7405	135	5.486 189 5746
36	4.174 559 1968	86	5.037 365 6474	136	5.493 542 5158
37	4.201 586 2238	87	5.048 859 9003	137	5.500 841 7858
38	4.227 902 0133	88	5.060 223 5367	138	5.508 088 1627
39	4.253 543 0389	89	5.071 459 4917	139	5.515 282 4073
40	4.278 543 0389	90	5.082 570 6028	140	5.522 425 2644
41	4.302 933 2828	91	5.093 559 6138	141	5.529 517 4630
42	4.326 742 8066	92	5.104 429 1791	142	5.536 559 7165
43	4.349 998 6206	93	5.115 181 8672	143	5.543 552 7235
44	4.372 725 8933	94	5.125 820 1651	144	5.550 497 1679
45	4.394 948 1156	95	5.136 346 4809	145	5.557 393 7197
46	4.416 687 2460	96	5.146 763 1476	146	5.564 243 0347
47	4.437 963 8417	97	5.157 072 4259	147	5.571 045 7558
48	4.458 797 1751	98	5.167 276 5075	148	5.577 802 5126
49	4.479 205 3383	99	5.177 377 5176	149	5.584 513 9220
50	4.499 205 3383	100	5.187 377 5176	150	5.591 180 5886

Sum of Reciprocals of First n Integers from $n=1$ to $n=450$

$$\Sigma \frac{1}{n} = 1 + \frac{1}{2} + \frac{1}{3} + \cdots\cdots + \frac{1}{n}$$

n	$\Sigma \frac{1}{n}$	n	$\Sigma \frac{1}{n}$	n	$\Sigma \frac{1}{n}$
151	5.597 803 1052	201	5.883 006 0725	251	6.104 659 3132
152	5.604 382 0526	202	5.887 956 5675	252	6.108 627 5671
153	5.610 918 0003	203	5.892 882 6759	253	6.112 580 1363
154	5.617 411 5068	204	5.897 784 6367	254	6.116 517 1442
155	5.623 863 1197	205	5.902 662 6855	255	6.120 438 7128
156	5.630 273 3761	206	5.907 517 0544	256	6.124 344 9628
157	5.636 642 8028	207	5.912 347 9723	257	6.128 236 0134
158	5.642 971 9168	208	5.917 155 6646	258	6.132 111 9824
159	5.649 261 2249	209	5.921 940 3536	259	6.135 972 9863
160	5.655 511 2249	210	5.926 702 2584	260	6.139 819 1401
161	5.661 722 4051	211	5.931 441 5949	261	6.143 650 5577
162	5.667 895 2446	212	5.936 158 5760	262	6.147 467 3516
163	5.674 030 2139	213	5.940 853 4117	263	6.151 269 6330
164	5.680 127 7749	214	5.945 526 3089	264	6.155 057 5118
165	5.686 188 3809	215	5.950 177 4717	265	6.158 831 0967
166	5.692 212 4773	216	5.954 807 1013	266	6.162 590 4952
167	5.698 200 5013	217	5.959 415 3962	267	6.166 335 8135
168	5.704 152 8822	218	5.964 002 5522	268	6.170 067 1568
169	5.710 070 0420	219	5.968 568 7622	269	6.173 784 6289
170	5.715 952 3949	220	5.973 114 2168	270	6.177 488 3326
171	5.721 800 3481	221	5.977 639 1036	271	6.181 178 3695
172	5.727 614 3016	222	5.982 143 6081	272	6.184 854 8401
173	5.733 394 6485	223	5.986 627 9131	273	6.188 517 8438
174	5.739 141 7749	224	5.991 092 1988	274	6.192 167 4788
175	5.744 856 0606	225	5.995 536 6432	275	6.195 803 8425
176	5.750 537 8788	226	5.999 961 4220	276	6.199 427 0309
177	5.756 187 5963	227	6.004 366 7083	277	6.203 037 1392
178	5.761 805 5738	228	6.008 752 6733	278	6.206 634 2615
179	5.767 392 1660	229	6.013 119 4855	279	6.210 218 4909
180	5.772 947 7216	230	6.017 467 3116	280	6.213 789 9194
181	5.778 472 5834	231	6.021 796 3159	281	6.217 348 6383
182	5.783 967 0889	232	6.026 106 6607	282	6.220 894 7376
183	5.789 431 5698	233	6.030 398 5062	283	6.224 428 3065
184	5.794 866 3524	234	6.034 672 0105	284	6.227 949 4332
185	5.800 271 7578	235	6.038 927 3296	285	6.231 458 2052
186	5.805 648 1019	236	6.043 164 6178	286	6.234 954 7087
187	5.810 995 6955	237	6.047 384 0271	287	6.238 439 0292
188	5.816 314 8444	238	6.051 585 7077	288	6.241 911 2515
189	5.821 605 8497	239	6.055 769 8082	289	6.245 371 4591
190	5.826 869 0076	240	6.059 936 4748	290	6.248 819 7349
191	5.832 104 6097	241	6.064 085 8524	291	6.252 256 1610
192	5.837 312 9430	242	6.068 218 0838	292	6.255 680 8186
193	5.842 494 2902	243	6.072 333 3102	293	6.259 093 7879
194	5.847 648 9294	244	6.076 431 6708	294	6.262 495 1484
195	5.852 777 1345	245	6.080 513 3035	295	6.265 884 9789
196	5.857 879 1753	246	6.084 578 3441	296	6.269 263 3573
197	5.862 955 3174	247	6.088 626 9271	297	6.272 630 3607
198	5.868 005 8225	248	6.092 659 1852	298	6.275 986 0654
199	5.873 030 9481	249	6.096 675 2494	299	6.279 330 5470
200	5.878 030 9481	250	6.100 675 2494	300	6.282 663 8803

Sum of Reciprocals of First n Integers from $n=1$ to $n=450$

$$\Sigma\frac{1}{n} = 1 + \frac{1}{2} + \frac{1}{3} + \cdots\cdots + \frac{1}{n}$$

n	$\Sigma\frac{1}{n}$	n	$\Sigma\frac{1}{n}$	n	$\Sigma\frac{1}{n}$
301	6.285 986 1394	351	6.439 425 7134	401	6.572 423 4568
302	6.289 297 3977	352	6.442 266 6225	402	6.574 911 0190
303	6.292 597 7277	353	6.445 099 4837	403	6.577 392 4085
304	6.295 887 2014	354	6.447 924 3424	404	6.579 867 6561
305	6.299 165 8900	355	6.450 741 2438	405	6.582 336 7919
306	6.302 433 8638	356	6.453 550 2326	406	6.584 799 8460
307	6.305 691 1928	357	6.456 351 3530	407	6.587 256 8485
308	6.308 937 9460	358	6.459 144 6491	408	6.589 707 8289
309	6.312 174 1920	359	6.461 930 1645	409	6.592 152 8167
310	6.315 399 9985	360	6.464 707 9422	410	6.594 591 8411
311	6.318 615 4325	361	6.467 478 0253	411	6.597 024 9311
312	6.321 820 5607	362	6.470 240 4563	412	6.599 452 1155
313	6.325 015 4489	363	6.472 995 2772	413	6.601 873 4231
314	6.328 200 1623	364	6.475 742 5300	414	6.604 288 8820
315	6.331 374 7655	365	6.478 482 2560	415	6.606 698 5205
316	6.334 539 3224	366	6.481 214 4964	416	6.609 102 3667
317	6.337 693 8966	367	6.483 939 2921	417	6.611 500 4482
318	6.340 838 5507	368	6.486 656 6834	418	6.613 892 7927
319	6.343 973 3469	369	6.489 366 7105	419	6.616 279 4276
320	6.347 098 3469	370	6.492 069 4132	420	6.618 660 3800
321	6.350 213 6117	371	6.494 764 8310	421	6.621 035 6769
322	6.353 319 2018	372	6.497 453 0030	422	6.623 405 3451
323	6.356 415 1770	373	6.500 133 9682	423	6.625 769 4113
324	6.359 501 5967	374	6.502 807 7649	424	6.628 127 9019
325	6.362 578 5198	375	6.505 474 4316	425	6.630 480 8431
326	6.365 646 0045	376	6.508 134 0061	426	6.632 828 2609
327	6.368 704 1085	377	6.510 786 5260	427	6.635 170 1813
328	6.371 752 8889	378	6.513 432 0286	428	6.637 506 6299
329	6.374 792 4026	379	6.516 070 5510	429	6.639 837 6322
330	6.377 822 7056	380	6.518 702 1300	430	6.642 163 2136
331	6.380 843 8537	381	6.521 326 8019	431	6.644 483 3992
332	6.383 855 9019	382	6.523 944 6030	432	6.646 798 2140
333	6.386 858 9049	383	6.526 555 5690	433	6.649 107 6828
334	6.389 852 9169	384	6.529 159 7357	434	6.651 411 8303
335	6.392 837 9915	385	6.531 757 1383	435	6.653 710 6809
336	6.395 814 1820	386	6.534 347 8119	436	6.656 004 2589
337	6.398 781 5410	387	6.536 931 7912	437	6.658 292 5884
338	6.401 740 1209	388	6.539 509 1108	438	6.660 575 6934
339	6.404 689 9734	389	6.542 079 8049	439	6.662 853 5977
340	6.407 631 1499	390	6.544 643 9074	440	6.665 126 3250
341	6.410 563 7012	391	6.547 201 4522	441	6.667 393 8987
342	6.413 487 6778	392	6.549 752 4726	442	6.669 656 3421
343	6.416 403 1297	393	6.552 297 0018	443	6.671 913 6785
344	6.419 310 1064	394	6.554 835 0729	444	6.674 165 9307
345	6.422 208 6572	395	6.557 366 7185	445	6.676 413 1218
346	6.425 098 8306	396	6.559 891 9710	446	6.678 655 2742
347	6.427 980 6750	397	6.562 410 8627	447	6.680 892 4107
348	6.430 854 2382	398	6.564 923 4255	448	6.683 124 5535
349	6.433 719 5677	399	6.567 429 6912	449	6.685 351 7250
350	6.436 576 7105	400	6.569 929 6912	450	6.687 573 9473

Logarithm of the Number of Combinations of n Things r at a Time from $n=5$ to $n=64$

$$\log {}_nC_r = \log \underline{|n} - \log \underline{|r} - \log \underline{|n-r}$$

r	$n=5$	$n=6$	$n=7$	$n=8$	$n=9$	r
1	0.698 9700	0.778 1513	0.845 0980	0.903 0900	0.954 2425	1
2	1.000 0000	1.176 0913	1.322 2193	1.447 1580	1.556 3025	2
3		1.301 0300	1.544 0680	1.748 1880	1.924 2793	3
4				1.845 0980	2.100 3705	4

r	$n=10$	$n=11$	$n=12$	$n=13$	$n=14$	r
1	1.000 0000	1.041 3927	1.079 1812	1.113 9434	1.146 1280	1
2	1.653 2125	1.740 3627	1.819 5439	1.892 0946	1.959 0414	2
3	2.079 1812	2.217 4839	2.342 4227	2.456 3660	2.561 1014	3
4	2.322 2193	2.518 5139	2.694 6052	2.854 3060	3.000 4341	4
5	2.401 4005	2.664 6420	2.898 7252	3.109 5785	3.301 4641	5
6			2.965 6720	3.234 5173	3.477 5553	6
7					3.535 5473	7

r	$n=15$	$n=16$	$n=17$	$n=18$	$n=19$	r
1	1.176 0913	1.204 1200	1.230 4489	1.255 2725	1.278 7536	1
2	2.021 1893	2.079 1812	2.133 5389	2.184 6914	2.232 9961	2
3	2.658 0114	2.748 1880	2.832 5089	2.911 6902	2.986 3238	3
4	3.135 1327	3.260 0714	3.376 5770	3.485 7214	3.588 3838	4
5	3.477 5553	3.640 2826	3.791 5503	3.932 8795	4.065 5050	5
6	3.699 4041	3.903 5241	4.092 5803	4.268 6716	4.433 4818	6
7	3.808 5486	4.058 4260	4.288 8749	4.502 7548	4.702 3271	7
8		4.109 5785	4.385 7850	4.641 0575	4.878 4184	8
9				4.686 8150	4.965 5686	9

r	$n=20$	$n=21$	$n=22$	$n=23$	$n=24$	r
1	1.301 0300	1.322 2193	1.342 4227	1.361 7278	1.380 2112	1
2	2.278 7536	2.322 2193	2.363 6120	2.403 1205	2.440 9091	2
3	3.056 9049	3.123 8516	3.187 5207	3.248 2186	3.306 2105	3
4	3.685 2938	3.777 0642	3.864 2143	3.947 1886	4.026 3698	4
5	4.190 4438	4.308 5431	4.420 5168	4.526 9722	4.628 4298	5
6	4.588 3838	4.734 5118	4.872 8145	5.004 0934	5.129 0322	6
7	4.889 4138	5.065 5050	5.231 8364	5.389 4443	5.539 2066	7
8	5.100 2671	5.308 5431	5.504 8377	5.690 4743	5.866 5656	8
9	5.225 2059	5.468 2439	5.696 7232	5.912 3230	6.116 4430	9
10	5.266 5986	5.547 4252	5.810 6666	6.058 4511	6.292 5343	10
11			5.848 4552	6.131 0017	6.397 2696	11
12					6.432 0317	12

r	$n=25$	$n=26$	$n=27$	$n=28$	$n=29$	r
1	1.397 9400	1.414 9733	1.431 3638	1.447 1580	1.462 3980	1
2	2.477 1213	2.511 8834	2.545 3071	2.577 4918	2.608 5260	2
3	3.361 7278	3.414 9733	3.466 1259	3.515 3439	3.562 7685	3
4	4.102 0905	4.174 6412	4.244 2771	4.311 2239	4.375 6819	4
5	4.725 3398	4.818 0939	4.907 0350	4.992 4651	5.074 6519	5

Logarithm of the Number of Combinations of n Things r at a Time from $n=5$ to $n=64$

$$\log {}_nC_r = \log \underline{|n} - \log \underline{|r} - \log \underline{|n-r}$$

r	$n=25$	$n=26$	$n=27$	$n=28$	$n=29$	r
6	5.248 2186	5.362 1619	5.471 3064	5.576 0417	5.676 7119	6
7	5.681 8741	5.818 0939	5.948 4276	6.073 3664	6.193 3417	7
8	6.034 0566	6.193 7575	6.346 3676	6.492 4957	6.632 6744	8
9	6.310 2631	6.494 7875	6.670 8787	6.839 2832	7.000 6512	9
10	6.514 3830	6.725 2364	6.926 1512	7.118 0368	7.301 6812	10
11	6.649 0816	6.887 9637	7.115 2075	7.331 9166	7.539 0421	11
12	6.716 0284	6.984 8737	7.240 1462	7.483 1843	7.715 1333	12
13		7.017 0584	7.302 2941	7.573 3609	7.831 6389	13
14				7.603 3241	7.889 6309	14

r	$n=30$	$n=31$	$n=32$	$n=33$	$n=34$	r
1	1.477 1213	1.491 3617	1.505 1500	1.518 5139	1.531 4789	1
2	2.638 4893	2.667 4530	2.695 4817	2.722 6339	2.748 9629	2
3	3.608 5260	3.652 7297	3.695 4817	3.736 8744	3.776 9916	3
4	4.437 8298	4.497 8277	4.555 8197	4.611 9356	4.666 2933	4
5	5.153 8332	5.230 2215	5.304 0077	5.375 3636	5.444 4445	5
6	5.773 6219	5.867 0436	5.957 2202	6.044 3704	6.128 6913	6
7	6.308 7351	6.419 8856	6.527 0955	6.630 6361	6.730 7513	7
8	6.767 3730	6.897 0068	7.021 9456	7.142 5195	7.259 0251	8
9	7.155 5531	7.304 4921	7.447 9143	7.586 2170	7.719 7559	9
10	7.477 7724	7.646 9148	7.809 6421	7.966 4282	8.117 6959	10
11	7.737 4097	7.927 7414	8.110 6721	8.286 7634	8.456 5145	11
12	7.936 9821	8.149 5902	8.353 7102	8.550 0048	8.739 0610	12
13	8.078 3112	8.314 4004	8.540 7968	8.758 2808	8.967 5404	13
14	8.162 6321	8.423 5449	8.673 4224	8.913 1827	9.143 6316	14
15	8.190 6609	8.477 9026	8.752 6036	9.015 8451	9.268 5704	15
16			8.778 9326	9.066 9976	9.343 2040	16
17					9.368 0276	17

r	$n=35$	$n=36$	$n=37$	$n=38$	$n=39$	r
1	1.544 0680	1.556 3025	1.568 2017	1.579 7836	1.591 0646	1
2	2.774 5170	2.799 3405	2.823 4742	2.846 9553	2.869 8182	2
3	3.815 9097	3.853 6982	3.890 4210	3.926 1366	3.960 8987	3
4	4.718 9996	4.770 1522	4.819 8399	4.868 1446	4.915 1412	4
5	5.511 3913	5.576 3321	5.639 3839	5.700 6535	5.760 2392	5
6	6.210 3613	6.289 5426	6.366 3826	6.441 0162	6.513 5669	6
7	6.827 6613	6.921 5658	7.012 6463	7.101 0682	7.186 9828	7
8	7.371 7293	7.480 8738	7.586 6775	7.689 3399	7.789 0428	8
9	7.848 8506	7.973 7893	8.094 8330	8.212 2186	8.326 1620	9
10	8.263 8239	8.405 1531	8.541 9910	8.674 6166	8.803 2832	10
11	8.620 3713	8.778 7338	8.931 9621	9.080 3820	9.224 2885	11
12	8.921 4013	9.097 4925	9.267 7542	9.432 5645	9.592 2653	12
13	9.169 1857	9.363 7604	9.551 7509	9.733 5945	9.909 6857	13
14	9.365 4804	9.579 3602	9.785 8341	9.985 4064	10.178 5310	14
15	9.511 6084	9.745 6916	9.971 4707	10.189 5264	10.400 3798	15
16	9.608 5184	9.863 7909	10.109 7734	10.347 1343	10.576 4711	16
17	9.656 8231	9.934 3720	10.201 5437	10.459 1080	10.707 7500	17
18		9.957 8531	10.247 3012	10.526 0548	10.794 9001	18
19				10.548 3312	10.838 3658	19

Logarithm of the Number of Combinations of n Things r at a Time from $n=5$ to $n=64$

$$\log {}_nC_r = \log \lfloor n - \log \lfloor r - \log \lfloor n-r$$

r	$n=40$	$n=41$	$n=42$	$n=43$	$n=44$	r
1	1.602 0600	1.612 7839	1.623 2493	1.633 4685	1.643 4527	1
2	2.892 0946	2.913 8139	2.935 0032	2.955 6878	2.975 8911	2
3	3.994 7569	4.027 7572	4.059 9419	4.091 3504	4.122 0192	3
4	4.960 8987	5.005 4808	5.048 9465	5.091 3504	5.132 7430	4
5	5.818 2312	5.874 7125	5.929 7601	5.983 4450	6.035 8330	5
6	6.584 1480	6.652 8638	6.719 8106	6.785 0773	6.848 7464	6
7	7.270 5288	7.351 8338	7.431 0150	7.508 1810	7.583 4319	7
8	7.885 9528	7.980 2227	8.071 9931	8.161 3935	8.248 5437	8
9	8.436 8603	8.544 4941	8.649 2295	8.751 2190	8.850 6037	9
10	8.928 2220	9.049 6441	9.167 7434	9.282 6980	9.394 6717	10
11	9.363 9505	9.499 6131	9.631 5007	9.759 8192	9.884 7579	11
12	9.747 1673	9.897 5531	10.043 6812	10.185 7879	10.324 0906	12
13	10.080 3820	10.246 0078	10.406 8591	10.563 2063	10.715 2973	13
14	10.365 6177	10.547 0378	10.723 1290	10.894 1995	11.060 5309	14
15	10.604 4998	10.802 3103	10.994 1958	11.180 5062	11.361 5609	15
16	10.798 3198	11.013 1637	11.221 4396	11.423 5443	11.619 8389	16
17	10.948 0821	11.180 6547	11.405 9640	11.624 4591	11.836 5480	17
18	11.054 5375	11.305 5935	11.548 6315	11.784 1600	12.012 6393	18
19	11.118 2065	11.388 5677	11.650 0892	11.903 3464	12.148 8590	19
20	11.139 3958	11.429 9604	11.710 7870	11.982 5276	12.245 7691	20
21			11.730 9904	12.022 0362	12.303 7610	21
22					12.323 0662	22

r	$n=45$	$n=46$	$n=47$	$n=48$	$n=49$	r
1	1.653 2125	1.662 7578	1.672 0979	1.681 2412	1.690 1961	1
2	2.995 6352	3.014 9403	3.033 8257	3.052 3091	3.070 4073	2
3	4.151 9824	4.181 2718	4.209 9170	4.237 9457	4.265 3839	3
4	5.173 1717	5.212 6802	5.251 3096	5.289 0982	5.326 0818	4
5	6.086 9855	6.136 9595	6.185 8081	6.233 5809	6.280 3243	5
6	6.910 8943	6.971 5921	7.030 9061	7.088 8981	7.145 6257	6
7	7.656 8609	7.728 5541	7.798 5919	7.867 0493	7.933 9961	7
8	8.333 5545	8.416 5287	8.497 5620	8.576 7432	8.654 1554	8
9	8.947 5137	9.042 0698	9.134 3840	9.224 5607	9.312 6968	9
10	9.503 8162	9.610 2715	9.714 1676	9.815 6253	9.914 7568	10
11	10.006 4915	10.125 1813	10.240 9767	10.354 0162	10.464 4287	11
12	10.458 7892	10.590 0681	10.718 0979	10.843 0367	10.965 0310	12
13	10.863 3598	11.007 6037	11.148 2226	11.285 3958	11.419 2894	13
14	11.222 3817	11.379 9896	11.533 5735	11.683 3358	11.829 4639	14
15	11.537 6522	11.709 0483	11.875 9962	12.038 7235	12.197 4407	15
16	11.810 6534	11.996 2900	12.177 0262	12.353 1174	12.524 7996	16
17	12.042 6025	12.242 9624	12.437 9390	12.627 8185	12.812 8646	17
18	12.234 4880	12.450 0879	12.659 7877	12.863 9077	13.062 7421	18
19	12.387 0982	12.618 4923	12.843 4321	13.062 2753	13.275 3502	19
20	12.501 0416	12.748 8260	12.989 5601	13.223 6433	13.451 4414	20
21	12.576 7623	12.841 5801	13.098 7046	13.348 5821	13.591 6201	21
22	12.614 5508	12.897 0974	13.171 2553	13.437 5232	13.696 3555	22
23		12.915 5808	13.207 4675	13.490 7687	13.765 9914	23
24				13.508 4974	13.800 7535	24

Logarithm of the Number of Combinations of n Things r at a Time from $n=5$ to $n=64$

$$\log {}_nC_r = \log \underline{n} - \log \underline{r} - \log \underline{n-r}$$

r	$n=50$	$n=51$	$n=52$	$n=53$	$n=54$	r
1	1.698 9700	1.707 5702	1.716 0033	1.724 2759	1.732 3938	1
2	3.088 1361	3.105 5102	3.122 5435	3.139 2492	3.155 6396	2
3	4.292 2561	4.318 5850	4.344 3923	4.369 6981	4.394 5217	3
4	5.362 2939	5.397 7663	5.432 5284	5.466 6082	5.500 0319	4
5	6.326 0818	6.370 8941	6.414 7996	6.457 8342	6.500 0319	5
6	7.201 1430	7.255 5007	7.308 7462	7.360 9242	7.412 0767	6
7	7.999 4977	8.063 6152	8.126 4060	8.187 9240	8.248 2199	7
8	8.729 8761	8.803 9779	8.876 5285	8.947 5919	9.017 2278	8
9	9.398 8829	9.483 2038	9.565 7387	9.646 5619	9.725 7431	9
10	10.011 6668	10.106 4531	10.199 2071	10.290 0146	10.378 9556	10
11	10.572 3341	10.677 8443	10.781 0637	10.882 0903	10.981 0156	11
12	11.084 2174	11.200 7230	11.314 6664	11.426 1584	11.535 3028	12
13	11.550 0577	11.677 8443	11.802 7830	11.924 9989	12.044 5988	13
14	11.972 1314	12.111 4998	12.247 7196	12.380 9308	12.511 2546	14
15	12.352 3426	12.503 6103	12.651 4119	12.795 9042	12.937 2233	15
16	12.692 2907	12.855 7928	13.015 4936	13.171 5678	13.324 1680	16
17	12.993 3207	13.169 4119	13.341 3472	13.509 3206	13.673 5026	17
18	13.256 5621	13.445 6183	13.630 1428	13.810 3506	13.986 4319	18
19	13.482 9585	13.685 3787	13.882 8681	14.075 6650	14.263 9808	19
20	13.673 2902	13.889 4987	14.100 3520	14.306 1140	14.507 0188	20
21	13.828 1921	14.058 6411	14.283 2827	14.502 4086	14.716 2784	21
22	13.948 1675	14.193 3396	14.432 2217	14.665 1359	14.892 3697	22
23	14.033 5977	14.294 0098	14.547 6151	14.794 7698	15.035 7918	23
24	14.084 7502	14.360 9566	14.629 8019	14.891 6798	15.146 9423	24
25	14.101 7835	14.394 3803	14.679 0199	14.956 1378	15.226 1235	25
26			14.695 4103	14.988 3224	15.273 5482	26
27					15.289 3424	27

r	$n=55$	$n=56$	$n=57$	$n=58$	$n=59$	r
1	1.740 3627	1.748 1880	1.755 8749	1.763 4280	1.770 8520	1
2	3.171 7265	3.187 5207	3.203 0329	3.218 2729	3.233 2500	2
3	4.418 8811	4.442 7932	4.466 2743	4.489 3396	4.512 0036	3
4	5.532 8244	5.565 0091	5.596 6081	5.627 6423	5.658 1316	4
5	6.541 4246	6.582 0424	6.621 9140	6.661 0661	6.699 5243	5
6	7.462 2433	7.511 4614	7.559 7660	7.607 1907	7.653 7668	6
7	8.307 3414	8.365 3333	8.422 2382	8.478 0960	8.532 9447	7
8	9.085 4926	9.152 4394	9.218 1182	9.282 5762	9.345 8580	8
9	9.803 3480	9.879 4382	9.954 0718	10.027 3037	10.099 1857	9
10	10.466 1058	10.551 5360	10.635 3130	10.717 4998	10.798 1557	10
11	11.077 9256	11.172 9012	11.266 0182	11.357 3483	11.446 9591	11
12	11.642 1971	11.746 9324	11.849 5948	11.950 2649	12.049 0191	12
13	12.161 7222	12.276 4418	12.388 8639	12.499 0794	12.607 1736	13
14	12.638 8434	12.763 7822	12.886 1886	13.006 1639	13.123 8034	14
15	13.075 5360	13.210 9402	13.343 5658	13.473 5253	13.600 9246	15

Logarithm of the Number of Combinations of n Things r at a Time from $n=5$ to $n=64$

$$\log {}_nC_r = \log \underline{n} - \log \underline{r} - \log \underline{n-r}$$

r	$n=55$	$n=56$	$n=57$	$n=58$	$n=59$	r
16	13.473 4760	13.619 6041	13.762 6951	13.902 8738	14.040 2573	16
17	13.834 0917	13.991 2151	14.145 0300	14.295 6741	14.443 2769	17
18	14.158 6028	14.327 0072	14.491 8175	14.653 1855	14.811 2537	18
19	14.448 0509	14.628 0372	14.804 1285	14.976 4919	15.145 2839	19
20	14.703 3234	14.895 2090	15.082 8821	15.266 5265	15.446 3139	20
21	14.925 1722	15.129 2922	15.328 8645	15.524 0908	15.715 1592	21
22	15.114 2284	15.330 9375	15.542 7444	15.749 8698	15.952 5201	22
23	15.271 0145	15.500 6886	15.725 0846	15.944 4445	16.158 9940	23
24	15.395 9533	15.638 9913	15.876 3522	16.108 3013	16.335 0853	24
25	15.489 3750	15.746 2013	15.996 9262	16.241 8402	16.481 2133	25
26	15.551 5229	15.822 5896	16.087 1028	16.345 3808	16.597 7189	26
27	15.582 5571	15.868 3471	16.147 1007	16.419 1670	16.684 8691	27
28		15.883 5871	16.177 0640	16.463 3707	16.742 8610	28
29				16.478 0939	16.771 8247	29

r	$n=60$	$n=61$	$n=62$	$n=63$	$n=64$	r
1	1.778 1513	1.785 3298	1.792 3917	1.799 3405	1.806 1800	1
2	3.247 9733	3.262 4511	3.276 6915	3.290 7022	3.304 4905	2
3	4.534 2800	4.556 1818	4.577 7215	4.598 9108	4.619 7610	3
4	5.688 0949	5.717 5498	5.746 5135	5.775 0021	5.803 0308	4
5	6.737 3129	6.774 4547	6.810 9715	6.846 8841	6.882 2121	5
6	7.699 5243	7.744 4915	7.788 6951	7.832 1608	7.874 9128	6
7	8.586 8201	8.639 7561	8.691 7851	8.742 9376	8.793 2428	7
8	9.408 0059	9.469 0599	9.529 0578	9.588 0357	9.646 0276	8
9	10.169 7668	10.239 0933	10.307 2091	10.374 1559	10.439 9732	9
10	10.877 3369	10.955 0966	11.031 4849	11.106 5496	11.180 3358	10
11	11.534 9143	11.621 2741	11.706 0956	11.789 4328	11.871 3369	11
12	12.145 9291	12.241 0629	12.334 4845	12.426 2549	12.516 4315	12
13	12.713 2270	12.817 3156	12.919 5112	13.019 8817	13.118 4915	13
14	13.239 1968	13.352 4288	13.463 5792	13.572 7237	13.679 9337	14
15	13.725 8634	13.848 4354	13.968 7292	14.086 8285	14.202 8124	15
16	14.174 9559	14.307 0732	14.436 7071	14.563 9498	14.688 8885	16
17	14.587 9597	14.729 8368	14.869 0160	15.005 5987	15.139 6808	17
18	14.966 1556	15.118 0170	15.266 9560	15.413 0840	15.556 5062	18
19	15.310 6513	15.472 7318	15.631 6551	15.787 5430	15.940 5104	19
20	15.622 4052	15.794 9511	15.964 0935	16.129 9656	16.292 6929	20
21	15.902 2459	16.085 5157	16.265 1235	16.441 2148	16.613 9263	21
22	16.150 8878	16.345 1530	16.535 4847	16.722 0414	16.904 9721	22
23	16.368 9435	16.574 4898	16.775 8169	16.973 0974	17.166 4935	23
24	16.556 9340	16.774 0621	16.986 6702	17.194 9462	17.399 0662	24
25	16.715 2965	16.944 3239	17.168 5138	17.388 0708	17.603 1861	25
26	16.844 3912	17.085 6530	17.321 7422	17.552 8810	17.779 2774	26
27	16.944 5064	17.198 3573	17.446 6809	17.689 7190	17.927 6972	27
28	17.015 8623	17.282 6782	17.543 5909	17.798 8635	18.048 7409	28
29	17.058 6143	17.338 7941	17.612 6719	17.880 5335	18.142 6454	29
30	17.072 8547	17.366 8228	17.654 0646	17.934 8912	18.209 5922	30
31			17.667 8528	17.962 0434	18.249 7094	31
32					18.263 0734	32

Logarithm of the Gamma Function from $n=1$ to $n=2$ by Intervals of .001

$$\log \Gamma(n) = \log \int_0^\infty e^{-x} x^{n-1} dx$$

n	0	1	2	3	4
1.00	10.000 0000	9.999 7497	9.999 5001	9.999 2512	9.999 0030
1.01	9.997 5287	9.997 2855	9.997 0430	9.996 8011	9.996 5600
1.02	9.995 1279	9.994 8916	9.994 6561	9.994 4212	9.994 1870
1.03	9.992 7964	9.992 5671	9.992 3384	9.992 1104	9.991 8831
1.04	9.990 5334	9.990 3108	9.990 0889	9.989 8677	9.989 6471
1.05	9.988 3379	9.988 1220	9.987 9068	9.987 6922	9.987 4783
1.06	9.986 2089	9.985 9996	9.985 7910	9.985 5830	9.985 3757
1.07	9.984 1469	9.983 9428	9.983 7407	9.983 5392	9.983 3384
1.08	9.982 1469	9.981 9506	9.981 7549	9.981 5599	9.981 3655
1.09	9.980 2123	9.980 0223	9.979 8329	9.979 6442	9.979 4561
1.10	9.978 3407	9.978 1570	9.977 9738	9.977 7914	9.977 6095
1.11	9.976 5313	9.976 3538	9.976 1768	9.976 0005	9.975 8248
1.12	9.974 7834	9.974 6120	9.974 4411	9.974 2709	9.974 1013
1.13	9.973 0962	9.972 9308	9.972 7659	9.972 6017	9.972 4381
1.14	9.971 4689	9.971 3094	9.971 1505	9.970 9922	9.970 8345
1.15	9.969 9007	9.969 7471	9.969 5941	9.969 4417	9.969 2898
1.16	9.968 3910	9.968 2432	9.968 0960	9.967 9493	9.967 8033
1.17	9.966 9390	9.966 7969	9.966 6554	9.966 5145	9.966 3742
1.18	9.965 5440	9.965 4076	9.965 2718	9.965 1366	9.965 0019
1.19	9.964 2054	9.964 0746	9.963 9444	9.963 8147	9.963 6856
1.20	9.962 9225	9.962 7973	9.962 6725	9.962 5484	9.962 4248
1.21	9.961 6946	9.961 5748	9.961 4556	9.961 3369	9.961 2188
1.22	9.960 5212	9.960 4068	9.960 2930	9.960 1796	9.960 0669
1.23	9.959 4015	9.959 2925	9.959 1840	9.959 0760	9.958 9685
1.24	9.958 3350	9.958 2313	9.958 1280	9.958 0253	9.957 9232
1.25	9.957 3211	9.957 2226	9.957 1246	9.957 0271	9.956 9301
1.26	9.956 3592	9.956 2658	9.956 1730	9.956 0806	9.955 9888
1.27	9.955 4487	9.955 3604	9.955 2727	9.955 1855	9.955 0988
1.28	9.954 5891	9.954 5059	9.954 4232	9.954 3410	9.954 2593
1.29	9.953 7798	9.953 7016	9.953 6239	9.953 5467	9.953 4700
1.30	9.953 0203	9.952 9470	9.952 8743	9.952 8021	9.952 7303
1.31	9.952 3100	9.952 2417	9.952 1739	9.952 1065	9.952 0396
1.32	9.951 6485	9.951 5850	9.951 5220	9.951 4595	9.951 3975
1.33	9.951 0353	9.950 9766	9.950 9184	9.950 8606	9.950 8034
1.34	9.950 4698	9.950 4158	9.950 3624	9.950 3094	9.950 2568
1.35	9.949 9515	9.949 9023	9.949 8535	9.949 8052	9.949 7573
1.36	9.949 4800	9.949 4355	9.949 3913	9.949 3477	9.949 3044
1.37	9.949 0549	9.949 0149	9.948 9754	9.948 9363	9.948 8977
1.38	9.948 6756	9.948 6402	9.948 6052	9.948 5707	9.948 5366
1.39	9.948 3417	9.948 3108	9.948 2803	9.948 2503	9.948 2208
1.40	9.948 0528	9.948 0263	9.948 0003	9.947 9748	9.947 9497
1.41	9.947 8084	9.947 7864	9.947 7648	9.947 7437	9.947 7230
1.42	9.947 6081	9.947 5905	9.947 5733	9.947 5565	9.947 5402
1.43	9.947 4515	9.947 4382	9.947 4254	9.947 4130	9.947 4010
1.44	9.947 3382	9.947 3292	9.947 3207	9.947 3125	9.947 3049
1.45	9.947 2677	9.947 2630	9.947 2587	9.947 2549	9.947 2514
1.46	9.947 2397	9.947 2393	9.947 2392	9.947 2396	9.947 2404
1.47	9.947 2539	9.947 2576	9.947 2617	9.947 2662	9.947 2712
1.48	9.947 3097	9.947 3175	9.947 3258	9.947 3345	9.947 3436
1.49	9.947 4068	9.947 4188	9.947 4312	9.947 4440	9.947 4572

$$\log \Gamma(n+1) = \log n + \log \Gamma(n)$$

Logarithm of the Gamma Function from $n=1$ to $n=2$ by Intervals of .001

$$\log \Gamma(n) = \log \int_0^\infty e^{-x} x^{n-1} dx$$

n	5	6	7	8	9
1.00	9.998 7555	9.998 5087	9.998 2627	9.998 0173	9.997 7727
1.01	9.996 3196	9.996 0799	9.995 8408	9.995 6025	9.995 3648
1.02	9.993 9535	9.993 7207	9.993 4886	9.993 2572	9.993 0265
1.03	9.991 6564	9.991 4305	9.991 2052	9.990 9806	9.990 7567
1.04	9.989 4273	9.989 2080	9.988 9895	9.988 7716	9.988 5544
1.05	9.987 2651	9.987 0525	9.986 8406	9.986 6294	9.986 4188
1.06	9.985 1690	9.984 9630	9.984 7577	9.984 5530	9.984 3489
1.07	9.983 1382	9.982 9387	9.982 7398	9.982 5415	9.982 3449
1.08	9.981 1717	9.980 9785	9.980 7860	9.980 5941	9.980 4029
1.09	9.979 2686	9.979 0818	9.978 8956	9.978 7100	9.978 5250
1.10	9.977 4283	9.977 2476	9.977 0676	9.976 8882	9.976 7095
1.11	9.975 6497	9.975 4753	9.975 3014	9.975 1281	9.974 9555
1.12	9.973 9323	9.973 7638	9.973 5960	9.973 4288	9.973 2622
1.13	9.972 2751	9.972 1126	9.971 9508	9.971 7896	9.971 6289
1.14	9.970 6774	9.970 5209	9.970 3650	9.970 2096	9.970 0549
1.15	9.969 1386	9.968 9879	9.968 8378	9.968 6883	9.968 5393
1.16	9.967 6578	9.967 5129	9.967 3686	9.967 2248	9.967 0816
1.17	9.966 2344	9.966 0952	9.965 9566	9.965 8185	9.965 6810
1.18	9.964 8677	9.964 7341	9.964 6011	9.964 4687	9.964 3368
1.19	9.963 5570	9.963 4290	9.963 3016	9.963 1747	9.963 0483
1.20	9.962 3017	9.962 1792	9.962 0573	9.961 9358	9.961 8150
1.21	9.961 1011	9.960 9841	9.960 8675	9.960 7515	9.960 6361
1.22	9.959 9546	9.959 8430	9.959 7318	9.959 6212	9.959 5111
1.23	9.958 8616	9.958 7553	9.958 6494	9.958 5441	9.958 4393
1.24	9.957 8215	9.957 7204	9.957 6198	9.957 5197	9.957 4201
1.25	9.956 8337	9.956 7377	9.956 6423	9.956 5474	9.956 4530
1.26	9.955 8975	9.955 8067	9.955 7165	9.955 6267	9.955 5374
1.27	9.955 0126	9.954 9268	9.954 8416	9.954 7570	9.954 6728
1.28	9.954 1782	9.954 0975	9.954 0173	9.953 9376	9.953 8585
1.29	9.953 3938	9.953 3181	9.953 2439	9.953 1682	9.953 0940
1.30	9.952 6590	9.952 5883	9.952 5180	9.952 4482	9.952 3789
1.31	9.951 9732	9.951 9073	9.951 8419	9.951 7770	9.951 7125
1.32	9.951 3359	9.951 2748	9.951 2142	9.951 1541	9.951 0944
1.33	9.950 7466	9.950 6903	9.950 6344	9.950 5791	9.950 5242
1.34	9.950 2048	9.950 1532	9.950 1021	9.950 0514	9.950 0012
1.35	9.949 7100	9.949 6630	9.949 6166	9.949 5706	9.949 5251
1.36	9.949 2617	9.949 2194	9.949 1776	9.949 1362	9.949 0953
1.37	9.948 8595	9.948 8218	9.948 7846	9.948 7478	9.949 7115
1.38	9.948 5030	9.948 4698	9.948 4371	9.948 4049	9.948 3731
1.39	9.948 1916	9.948 1630	9.948 1348	9.948 1070	9.948 0797
1.40	9.947 9250	9.947 9008	9.947 8770	9.947 8537	9.947 8308
1.41	9.947 7027	9.947 6829	9.947 6636	9.947 6446	9.947 6261
1.42	9.947 5243	9.947 5089	9.947 4939	9.947 4793	9.947 4652
1.43	9.947 3894	9.947 3783	9.947 3676	9.947 3574	9.947 3476
1.44	9.947 2976	9.947 2908	9.947 2844	9.947 2784	9.947 2728
1.45	9.947 2484	9.947 2459	9.947 2437	9.947 2419	9.947 2406
1.46	9.947 2416	9.947 2432	9.947 2452	9.947 2477	9.947 2506
1.47	9.947 2766	9.947 2824	9.947 2886	9.947 2952	9.947 3022
1.48	9.947 3531	9.947 3630	9.947 3734	9.947 3841	9.947 3953
1.49	9.947 4708	9.947 4848	9.947 4992	9.947 5141	9.947 5293

$$\log \Gamma(n+1) = \log n + \log \Gamma(n)$$

Logarithm of the Gamma Function from $n=1$ to $n=2$ by Intervals of .001

$$\log \Gamma(n) = \log \int_0^\infty e^{-x} x^{n-1} dx$$

n	0	1	2	3	4
1.50	9.947 5449	9.947 5610	9.947 5774	9.947 5943	9.947 6116
1.51	9.947 7237	9.947 7438	9.947 7642	9.947 7851	9.947 8064
1.52	9.947 9426	9.947 9667	9.947 9912	9.948 0161	9.948 0414
1.53	9.948 2015	9.948 2295	9.948 2580	9.948 2868	9.948 3161
1.54	9.948 4998	9.948 5318	9.948 5642	9.948 5970	9.948 6302
1.55	9.948 8374	9.948 8733	9.948 9096	9.948 9463	9.948 9834
1.56	9.949 2139	9.949 2538	9.949 2938	9.949 3344	9.949 3753
1.57	9.949 6289	9.949 6725	9.949 7165	9.949 7609	9.949 8056
1.58	9.950 0822	9.950 1296	9.950 1774	9.950 2255	9.950 2741
1.59	9.950 5733	9.950 6245	9.950 6760	9.950 7280	9.950 7803
1.60	9.951 1020	9.951 1569	9.951 2122	9.951 2679	9.951 3240
1.61	9.951 6680	9.951 7267	9.951 7857	9.951 8451	9.951 9048
1.62	9.952 2710	9.952 3333	9.952 3960	9.952 4591	9.952 5225
1.63	9.952 9107	9.952 9767	9.953 0430	9.953 1097	9.953 1767
1.64	9.953 5867	9.953 6563	9.953 7263	9.953 7966	9.953 8673
1.65	9.954 2989	9.954 3721	9.954 4456	9.954 5195	9.954 5938
1.66	9.955 0468	9.555 1236	9.555 2007	9.955 2782	9.955 3560
1.67	9.955 8303	9.955 9106	9.955 9913	9.956 0723	9.956 1536
1.68	9.956 6491	9.956 7329	9.956 8170	9.956 9015	9.956 9864
1.69	9.957 5028	9.957 5901	9.957 6777	9.957 7657	9.957 8540
1.70	9.958 3912	9.958 4820	9.958 5731	9.958 6645	9.958 7563
1.71	9.959 3141	9.959 4083	9.959 5028	9.959 5977	9.959 6929
1.72	9.960 2712	9.960 3688	9.960 4667	9.960 5650	9.960 6636
1.73	9.961 2622	9.961 3632	9.961 4645	9.961 5661	9.961 6681
1.74	9.962 2869	9.962 3912	9.962 4959	9.962 6009	9.962 7062
1.75	9.963 3451	9.963 4527	9.963 5607	9.963 6690	9.963 7776
1.76	9.964 4364	9.964 5473	9.964 6586	9.964 7702	9.964 8821
1.77	9.965 5606	9.965 6749	9.965 7894	9.965 9043	9.966 0195
1.78	9.966 7176	9.966 8351	9.966 9529	9.967 0710	9.967 1895
1.79	9.967 9070	9.968 0277	9.968 1488	9.968 2701	9.968 3918
1.80	9.969 1287	9.969 2526	9.969 3768	9.969 5014	9.969 6263
1.81	9.970 3823	9.970 5095	9.970 6369	9.970 7646	9.970 8927
1.82	9.971 6678	9.971 7981	9.971 9287	9.972 0596	9.9 1908
1.83	9.972 9848	9.973 1182	9.973 2520	9.973 3860	9.973 5204
1.84	9.974 3331	9.974 4697	9.974 6065	9.974 7437	9.974 8812
1.85	9.975 7126	9.975 8522	9.975 9922	9.976 1325	9.976 2730
1.86	9.977 1230	9.977 2657	9.977 4087	9.977 5521	9.977 6957
1.87	9.978 5640	9.978 7098	9.978 8559	9.979 0023	9.979 1490
1.88	9.980 0356	9.980 1844	9.980 3335	9.980 4830	9.980 6327
1.89	9.981 5374	9.981 6893	9.981 8414	9.981 9939	9.982 1466
1.90	9.983 0693	9.983 2242	9.983 3793	9.983 5348	9.983 6905
1.91	9.984 6311	9.984 7890	9.984 9471	9.985 1055	9.985 2642
1.92	9.986 2226	9.986 3834	9.986 5445	9.986 7058	9.986 8675
1.93	9.987 8436	9.988 0073	9.988 1713	9.988 3356	9.988 5002
1.94	9.989 4938	9.989 6605	9.989 8274	9.989 9946	9.990 1621
1.95	9.991 1732	9.991 3427	9.991 5125	9.991 6826	9.991 8530
1.96	9.992 8815	9.993 0539	9.993 2266	9.993 3995	9.993 5728
1.97	9.994 6185	9.994 7937	9.994 9693	9.995 1451	9.995 3213
1.98	9.996 3840	9.996 5621	9.996 7405	9.996 9192	9.997 0982
1.99	9.998 1779	9.998 3588	9.998 5401	9.998 7216	9.998 9034

$$\log \Gamma(n+1) = \log n + \log \Gamma(n)$$

Logarithm of the Gamma Function from $n=1$ to $n=2$ by Intervals of .001

$$\log\Gamma(n)=\log\int_0^\infty e^{-x}x^{n-1}dx$$

n	5	6	7	8	9
1.50	9.947 6292	9.947 6473	9.947 6658	9.947 6847	9.947 7040
1.51	9.947 8281	9.947 8502	9.947 8727	9.947 8956	9.947 9189
1.52	9.948 0671	9.948 0932	9.948 1196	9.948 1465	9.948 1738
1.53	9.948 3457	9.948 3758	9.948 4062	9.948 4370	9.948 4682
1.54	9.948 6638	9.948 6977	9.948 7321	9.948 7668	9.948 8019
1.55	9.949 0208	9.949 0587	9.949 0969	9.949 1355	9.949 1745
1.56	9.949 4166	9.949 4583	9.949 5004	9.949 5429	9.949 5857
1.57	9.949 8508	9.949 8963	9.949 9422	9.949 9885	9.950 0351
1.58	9.950 3230	9.950 3723	9.950 4220	9.950 4720	9.950 5225
1.59	9.950 8330	9 950 8860	9.950 9395	9.950 9933	9.951 0475
1.60	9.951 3804	9.951 4372	9.951 4943	9.951 5519	9.951 6098
1.61	9.951 9650	9.952 0254	9.952 0862	9.952 1475	9.952 2091
1.62	9.952 5863	9.952 6504	9.952 7149	9.952 7798	9.952 8451
1.63	9.953 2442	9.953 3120	9.953 3801	9.953 4486	9.953 5175
1.64	9.953 9383	9.954 0097	9.954 0815	9.954 1536	9.954 2260
1.65	9.954 6684	9.954 7434	9.954 8187	9.954 8944	9.954 9704
1.66	9.955 4342	9.955 5127	9.955 5916	9.955 6708	9.955 7504
1.67	9.956 2353	9.956 3174	9.956 3998	9.956 4826	9.956 5656
1.68	9.957 0716	9.957 1571	9.957 2430	9.957 3293	9.957 4159
1.69	9.957 9427	9.958 0317	9.958 1211	9.958 2108	9.958 3008
1.70	9.958 8484	9.958 9409	9.959 0337	9.959 1268	9.959 2203
1.71	9.959 7884	9.959 8843	9.959 9805	9.960 0771	9.960 1740
1.72	9.960 7625	9.960 8618	9.960 9614	9.961 0613	9.961 1616
1.73	9.961 7704	9.961 8730	9.961 9760	9.962 0793	9.962 1830
1.74	9.962 8118	9.962 9178	9.963 0241	9.963 1308	9.963 2378
1.75	9.963 8866	9.963 9959	9.964 1055	9.964 2155	9.964 3258
1.76	9.964 9944	9.965 1070	9.965 2200	9.965 3331	9.965 4467
1.77	9.966 1350	9.966 2509	9.966 3671	9.966 4836	9.966 6004
1.78	9.967 3082	9.967 4274	9.967 5468	9.967 6665	9.967 7866
1.79	9.968 5138	9.968 6361	9.968 7588	9.968 8818	9.969 0051
1.80	9.969 7515	9.969 8770	9.970 0029	9.970 1291	9.970 2555
1.81	9.971 0211	9.971 1498	9.971 2788	9.971 4082	9.971 5378
1.82	9.972 3224	9.972 4542	9.972 5864	9.972 7189	9.972 8517
1.83	9.973 6551	9.973 7900	9.973 9254	9.974 0610	9.974 1969
1.84	9.975 0190	9.975 1571	9.975 2955	9.975 4342	9.975 5733
1.85	9.976 4140	9.976 5551	9.976 6966	9.976 8384	9.976 9805
1.86	9.977 8397	9.977 9839	9.978 1285	9.978 2734	9.978 4186
1.87	9.979 2960	9.979 4433	9.979 5910	9.979 7389	9.979 8871
1.88	9.980 7827	9.980 9331	9.981 0837	9.981 2346	9.981 3859
1.89	9.982 2996	9.982 4530	9.982 6066	9.982 7606	9.982 9148
1.90	9.983 8465	9.984 0028	9.984 1595	9.984 3164	9.984 4736
1.91	9.985 4232	9.985 5825	9.985 7421	9.985 9020	9.986 0622
1.92	9.987 0294	9.987 1917	9.987 3542	9.987 5170	9.987 6802
1.93	9.988 6651	9.988 8302	9.988 9957	9.989 1614	9.989 3275
1.94	9.990 3299	9.990 4980	9.990 6663	9.990 8350	9.991 0039
1.95	9.992 0237	9.992 1947	9.992 3659	9.992 5375	9.992 7093
1.96	9.993 7464	9.993 9202	9.994 0943	9.994 2688	9.994 4435
1.97	9.995 4977	9.995 6744	9.995 8513	9.996 0286	9.996 2062
1.98	9.997 2774	9.997 4570	9.997 6368	9.997 8169	9.997 9972
1.99	9.999 0854	9.999 2678	9.999 4504	9.999 6333	9.999 8165

$$\log\Gamma(n+1)=\log n+\log\Gamma(n)$$

EXPONENTIAL GROWTH CURVE THEORY

The exponential growth curve

$$y = a\,r^x$$

can be fitted to serial data by taking the position of the first term as origin and assuming the conditions

$$\sum_{i=0}^{n-1} y_i = \sum_{i=0}^{n-1} {}_o y_i = \mathrm{N}, \qquad \sum_{i=0}^{n-1} x_i y_i = \sum_{i=0}^{n-1} x_i \cdot {}_o y_i,$$

where ${}_o y_i$ denotes the observed frequency.

$$\text{Then} \quad \sum_{i=0}^{n-1} y_i = a \sum_{i=0}^{n-1} r^i = a \frac{r^n - 1}{r - 1},$$

$$\text{and} \quad \sum_{i=0}^{n-1} x_i y_i = a \sum_{i=0}^{n-1} x_i r^i = a \left[(n-1) \frac{r^n}{r-1} - \frac{r^n - r}{(r-1)^2} \right].$$

Hence the value of the mean, M, may be written

$$\mathrm{M} = \sum_{i=0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{i=0}^{n-1} {}_o y_i = \frac{n}{1 - r^{-n}} - \frac{1}{1 - r^{-1}}.$$

The following table has been prepared which enables one to obtain the value of r by inspection when M and n are known. After r is determined, a is computed by the formula

$$a = \frac{r - (n - \mathrm{M})(r-1)}{n} \mathrm{N}.$$

The method commonly used of fitting the logarithms of the frequencies to the straight line is open to several objections. The sum of the logarithms of the frequencies, that is, the product of the frequencies, is reproduced, instead of the desired sum of the frequencies themselves. Furthermore, the fact that the linear method yields the best fit to the logarithms means that it does not give the best fit to the frequencies themselves. Too much weight is given to the smaller frequencies.

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=2$	$n=3$	$n=4$	r	$n=2$	$n=3$	$n=4$
1.001	0.5002	1.0007	1.5012	1.051	0.5124	1.0331	1.5621
2	0.5005	1.0013	1.5025	52	0.5127	1.0338	1.5633
3	0.5007	1.0020	1.5037	53	0.5129	1.0344	1.5645
4	0.5010	1.0027	1.5050	54	0.5131	1.0350	1.5657
5	0.5013	1.0033	1.5062	55	0.5134	1.0357	1.5669
6	0.5015	1.0040	1.5075	56	0.5136	1.0363	1.5681
7	0.5018	1.0047	1.5087	57	0.5139	1.0369	1.5692
8	0.5020	1.0053	1.5100	58	0.5141	1.0376	1.5704
9	0.5022	1.0060	1.5112	59	0.5143	1.0382	1.5716
10	0.5025	1.0066	1.5124	60	0.5146	1.0388	1.5728
1.011	0.5027	1.0073	1.5137	1.061	0.5148	1.0395	1.5739
12	0.5030	1.0079	1.5149	62	0.5150	1.0401	1.5751
13	0.5032	1.0086	1.5161	63	0.5153	1.0407	1.5763
14	0.5035	1.0093	1.5174	64	0.5155	1.0413	1.5775
15	0.5037	1.0099	1.5186	65	0.5157	1.0420	1.5786
16	0.5040	1.0106	1.5198	66	0.5160	1.0426	1.5798
17	0.5042	1.0112	1.5211	67	0.5162	1.0432	1.5810
18	0.5045	1.0119	1.5223	68	0.5164	1.0438	1.5821
19	0.5047	1.0125	1.5235	69	0.5167	1.0444	1.5833
20	0.5050	1.0132	1.5248	70	0.5169	1.0451	1.5845
1.021	0.5052	1.0139	1.5260	1.071	0.5171	1.0457	1.5856
22	0.5054	1.0145	1.5272	72	0.5174	1.0463	1.5868
23	0.5057	1.0152	1.5284	73	0.5176	1.0469	1.5879
24	0.5059	1.0158	1.5296	74	0.5178	1.0476	1.5891
25	0.5062	1.0165	1.5309	75	0.5181	1.0482	1.5903
26	0.5064	1.0171	1.5321	76	0.5183	1.0488	1.5914
27	0.5067	1.0178	1.5333	77	0.5185	1.0494	1.5926
28	0.5069	1.0184	1.5345	78	0.5188	1.0500	1.5937
29	0.5071	1.0191	1.5357	79	0.5190	1.0506	1.5949
30	0.5074	1.0197	1.5369	80	0.5192	1.0513	1.5960
1.031	0.5076	1.0203	1.5382	1.081	0.5195	1.0519	1.5972
32	0.5079	1.0210	1.5394	82	0.5197	1.0525	1.5983
33	0.5081	1.0216	1.5406	83	0.5199	1.0531	1.5995
34	0.5084	1.0223	1.5418	84	0.5202	1.0537	1.6006
35	0.5086	1.0229	1.5430	85	0.5204	1.0543	1.6018
36	0.5088	1.0236	1.5442	86	0.5206	1.0549	1.6029
37	0.5091	1.0242	1.5454	87	0.5208	1.0556	1.6041
38	0.5093	1.0249	1.5466	88	0.5211	1.0562	1.6052
39	0.5096	1.0255	1.5478	89	0.5213	1.0568	1.6064
40	0.5098	1.0261	1.5490	90	0.5215	1.0574	1.6075
1.041	0.5100	1.0268	1.5502	1.091	0.5218	1.0580	1.6086
42	0.5103	1.0274	1.5514	92	0.5220	1.0586	1.6098
43	0.5105	1.0281	1.5526	93	0.5222	1.0592	1.6109
44	0.5108	1.0287	1.5538	94	0.5224	1.0598	1.6120
45	0.5110	1.0293	1.5550	95	0.5227	1.0604	1.6132
46	0.5112	1.0300	1.5562	96	0.5229	1.0610	1.6143
47	0.5115	1.0306	1.5574	97	0.5231	1.0616	1.6154
48	0.5117	1.0312	1.5586	98	0.5234	1.0622	1.6166
49	0.5120	1.0319	1.5598	99	0.5236	1.0628	1.6177
50	0.5122	1.0325	1.5609	1.100	0.5238	1.0634	1.6188

$$a = \frac{r-(n-M)(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot_o y_i / \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=5$	$n=6$	$n=7$	r	$n=5$	$n=6$	$n=7$
1.001	2.0020	2.5029	3.0040	1.051	2.0994	2.6449	3.1986
2	2.0040	2.5058	3.0080	52	2.1013	2.6476	3.2023
3	2.0060	2.5087	3.0120	53	2.1032	2.6504	3.2061
4	2.0080	2.5117	3.0160	54	2.1051	2.6531	3.2099
5	2.0100	2.5145	3.0200	55	2.1069	2.6559	3.2137
6	2.0120	2.5175	3.0239	56	2.1088	2.6586	3.2174
7	2.0140	2.5204	3.0279	57	2.1107	2.6613	3.2212
8	2.0159	2.5232	3.0319	58	2.1126	2.6641	3.2249
9	2.0179	2.5261	3.0358	59	2.1145	2.6669	3.2287
10	2.0199	2.5290	3.0398	60	2.1164	2.6696	3.2324
1.011	2.0219	2.5319	3.0438	1.061	2.1182	2.6723	3.2362
12	2.0239	2.5348	3.0477	62	2.1201	2.6751	3.2399
13	2.0258	2.5377	3.0517	63	2.1220	2.6778	3.2436
14	2.0278	2.5405	3.0556	64	2.1239	2.6805	3.2473
15	2.0298	2.5434	3.0595	65	2.1257	2.6832	3.2511
16	2.0317	2.5463	3.0635	66	2.1276	2.6859	3.2548
17	2.0337	2.5492	3.0674	67	2.1295	2.6887	3.2585
18	2.0357	2.5520	3.0713	68	2.1313	2.6914	3.2622
19	2.0376	2.5549	3.0753	69	2.1332	2.6941	3.2659
20	2.0396	2.5577	3.0792	70	2.1351	2.6968	3.2696
1.021	2.0416	2.5606	3.0831	1.071	2.1369	2.6995	3.2733
22	2.0435	2.5635	3.0870	72	2.1388	2.7022	3.2770
23	2.0455	2.5663	3.0909	73	2.1406	2.7049	3.2807
24	2.0474	2.5692	3.0948	74	2.1425	2.7076	3.2844
25	2.0494	2.5720	3.0987	75	2.1443	2.7103	3.2880
26	2.0513	2.5748	3.1026	76	2.1462	2.7129	3.2917
27	2.0533	2.5777	3.1065	77	2.1480	2.7156	3.2954
28	2.0552	2.5805	3.1104	78	2.1498	2.7183	3.2990
29	2.0572	2.5833	3.1143	79	2.1517	2.7210	3.3027
30	2.0591	2.5862	3.1181	80	2.1535	2.7237	3.3063
1.031	2.0610	2.5890	3.1220	1.081	2.1554	2.7263	3.3100
32	2.0630	2.5918	3.1259	82	2.1572	2.7290	3.3136
33	2.0649	2.5946	3.1298	83	2.1590	2.7317	3.3173
34	2.0668	2.5975	3.1336	84	2.1609	2.7343	3.3209
35	2.0688	2.6003	3.1375	85	2.1627	2.7370	3.3245
36	2.0707	2.6031	3.1413	86	2.1645	2.7396	3.3281
37	2.0726	2.6059	3.1452	87	2.1663	2.7423	3.3318
38	2.0745	2.6087	3.1490	88	2.1682	2.7449	3.3354
39	2.0765	2.6115	3.1528	89	2.1700	2.7476	3.3390
40	2.0784	2.6143	3.1567	90	2.1718	2.7502	3.3426
1.041	2.0803	2.6171	3.1605	1.091	2.1736	2.7528	3.3462
42	2.0822	2.6199	3.1643	92	2.1754	2.7555	3.3498
43	2.0841	2.6227	3.1682	93	2.1772	2.7581	3.3534
44	2.0860	2.6254	3.1720	94	2.1791	2.7607	3.3570
45	2.0880	2.6282	3.1758	95	2.1809	2.7634	3.3605
46	2.0899	2.6310	3.1796	96	2.1827	2.7660	3.3641
47	2.0918	2.6338	3.1834	97	2.1845	2.7686	3.3677
48	2.0937	2.6366	3.1872	98	2.1863	2.7712	3.3713
49	2.0956	2.6393	3.1910	99	2.1881	2.7738	3.3748
50	2.0975	2.6421	3.1948	1.100	2.1899	2.7764	3.3784

$$a = \frac{r - (n-M)(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$\mathbf{M} = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=8$	$n=9$	$n=10$	r	$n=8$	$n=9$	$n=10$
1.001	3.5052	4.0067	4.5082	1.051	3.7604	4.3305	4.9087
2	3.5105	4.0133	4.5165	52	3.7654	4.3368	4.9164
3	3.5157	4.0200	4.5247	53	3.7703	4.3430	4.9242
4	3.5210	4.0266	4.5329	54	3.7746	4.3493	4.9319
5	3.5262	4.0333	4.5412	55	3.7802	4.3555	4.9396
6	3.5314	4.0399	4.5494	56	3.7851	4.3618	4.9473
7	3.5366	4.0465	4.5576	57	3.7901	4.3680	4.9550
8	3.5418	4.0531	4.5657	58	3.7950	4.3742	4.9627
9	3.5470	4.0597	4.5739	59	3.7999	4.3805	4.9703
10	3.5522	4.0663	4.5821	60	3.8048	4.3867	4.9780
1.011	3.5574	4.0729	4.5902	1.061	3.8097	4.3929	4.9856
12	3.5626	4.0795	4.5984	62	3.8146	4.3991	4.9933
13	3.5678	4.0861	4.6065	63	3.8195	4.4052	5.0009
14	3.5730	4.0927	4.6147	64	3.8243	4.4114	5.0085
15	3.5781	4.0992	4.6228	65	3.8292	4.4176	5.0161
16	3.5833	4.1058	4.6309	66	3.8341	4.4237	5.0237
17	3.5885	4.1123	4.6390	67	3.8389	4.4299	5.0313
18	3.5936	4.1189	4.6471	68	3.8438	4.4360	5.0388
19	3.5988	4.1254	4.6552	69	3.8486	4.4421	5.0464
20	3.6039	4.1319	4.6633	70	3.8535	4.4483	5.0539
1.021	3.6091	4.1385	4.6713	1.071	3.8583	4.4544	5.0615
22	3.6142	4.1450	4.6794	72	3.8631	4.4605	5.0690
23	3.6193	4.1515	4.6874	73	3.8679	4.4666	5.0765
24	3.6244	4.1580	4.6955	74	3.8727	4.4727	5.0840
25	3.6296	4.1645	4.7035	75	3.8775	4.4787	5.0915
26	3.6347	4.1710	4.7115	76	3.8823	4.4848	5.0989
27	3.6398	4.1774	4.7195	77	3.8871	4.4908	5.1064
28	3.6449	4.1839	4.7275	78	3.8919	4.4969	5.1138
29	3.6500	4.1904	4.7355	79	3.8967	4.5029	5.1213
30	3.6550	4.1968	4.7435	80	3.9015	4.5090	5.1287
1.031	3.6601	4.2033	4.7515	1.081	3.9062	4.5150	5.1361
32	3.6652	4.2097	4.7594	82	3.9110	4.5210	5.1435
33	3.6703	4.2161	4.7674	83	3.9158	4.5270	5.1509
34	3.6753	4.2226	4.7753	84	3.9205	4.5330	5.1583
35	3.6804	4.2290	4.7832	85	3.9252	4.5390	5.1656
36	3.6854	4.2354	4.7912	86	3.9300	4.5450	5.1730
37	3.6905	4.2418	4.7991	87	3.9347	4.5509	5.1803
38	3.6955	4.2482	4.8070	88	3.9394	4.5569	5.1876
39	3.7005	4.2545	4.8149	89	3.9441	4.5628	5.1949
40	3.7056	4.2609	4.8227	90	3.9488	4.5688	5.2022
1.041	3.7106	4.2673	4.8306	1.091	3.9535	4.5747	5.2095
42	3.7156	4.2736	4.8385	92	3.9582	4.5806	5.2168
43	3.7206	4.2800	4.8463	93	3.9629	4.5865	5.2241
44	3.7256	4.2863	4.8541	94	3.9676	4.5924	5.2313
45	3.7306	4.2927	4.8620	95	3.9723	4.5983	5.2385
46	3.7356	4.2990	4.8698	96	3.9769	4.6042	5.2458
47	3.7406	4.3053	4.8776	97	3.9816	4.6101	5.2530
48	3.7456	4.3116	4.8854	98	3.9862	4.6159	5.2602
49	3.7508	4.3179	4.8931	99	3.9909	4.6218	5.2674
50	3.7555	4.3242	4.9009	1.100	3.9955	4.6276	5.2745

$$a = \frac{n-(n-\mathbf{M})(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y=ar^x$ to n Observed Statistical Ordinates

$$\mathbf{M}=\sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=11$	$n=12$	$n=13$	r	$n=11$	$n=12$	$n=13$
1.001	5.0100	5.5119	6.0140	1.051	5.4949	6.0892	6.6916
2	5.0200	5.5238	6.0280	52	5.5043	6.1004	6.7046
3	5.0299	5.5357	6.0419	53	5.5137	6.1115	6.7176
4	5.0399	5.5476	6.0560	54	5.5230	6.1226	6.7306
5	5.0500	5.5594	6.0698	55	5.5323	6.1337	6.7436
6	5.0598	5.5713	6.0837	56	5.5416	6.1447	6.7565
7	5.0698	5.5831	6.0977	57	5.5509	6.1557	6.7694
8	5.0797	5.5949	6.1115	58	5.5602	6.1668	6.7823
9	5.0896	5.6068	6.1254	59	5.5695	6.1778	6.7952
10	5.0995	5.6186	6.1393	60	5.5787	6.1887	6.8080
1.011	5.1094	5.6303	6.1531	1.061	5.5879	6.1997	6.8208
12	5.1192	5.6421	6.1669	62	5.5972	6.2106	6.8336
13	5.1291	5.6539	6.1807	63	5.6064	6.2216	6.8464
14	5.1390	5.6656	6.1945	64	5.6156	6.2325	6.8592
15	5.1488	5.6773	6.2083	65	5.6247	6.2434	6.8719
16	5.1587	5.6890	6.2221	66	5.6339	6.2542	6.8846
17	5.1685	5.7007	6.2358	67	5.6430	6.2651	6.8973
18	5.1783	5.7124	6.2495	68	5.6522	6.2759	6.9099
19	5.1881	5.7241	6.2632	69	5.6613	6.2867	6.9226
20	5.1979	5.7358	6.2769	70	5.6704	6.2975	6.9352
1.021	5.2076	5.7474	6.2906	1.071	5.6795	6.3083	6.9477
22	5.2174	5.7590	6.3042	72	5.6885	6.3190	6.9603
23	5.2272	5.7706	6.3179	73	5.6976	6.3297	6.9728
24	5.2369	5.7822	6.3315	74	5.7066	6.3404	6.9853
25	5.2466	5.7938	6.3451	75	5.7156	6.3511	6.9978
26	5.2563	5.8054	6.3587	76	5.7246	6.3618	7.0102
27	5.2660	5.8169	6.3722	77	5.7336	6.3724	7.0227
28	5.2757	5.8285	6.3858	78	5.7426	6.3831	7.0351
29	5.2854	5.8400	6.3993	79	5.7516	6.3937	7.0474
30	5.2951	5.8515	6.4128	80	5.7605	6.4043	7.0598
1.031	5.3047	5.8630	6.4263	1.081	5.7694	6.4148	7.0721
32	5.3144	5.8745	6.4397	82	5.7783	6.4254	7.0844
33	5.3240	5.8859	6.4532	83	5.7872	6.4359	7.0967
34	5.3336	5.8974	6.4666	84	5.7961	6.4464	7.1089
35	5.3432	5.9088	6.4800	85	5.8050	6.4569	7.1211
36	5.3528	5.9202	6.4934	86	5.8138	6.4673	7.1333
37	5.3623	5.9316	6.5068	87	5.8226	6.4778	7.1455
38	5.3719	5.9430	6.5201	88	5.8315	6.4882	7.1576
39	5.3815	5.9543	6.5334	89	5.8403	6.4986	7.1698
40	5.3910	5.9657	6.5467	90	5.8490	6.5090	7.1818
1.041	5.4005	5.9770	6.5600	1.091	5.8578	6.5193	7.1939
42	5.4100	5.9883	6.5732	92	5.8666	6.5297	7.2059
43	5.4195	5.9996	6.5865	93	5.8753	6.5400	7.2179
44	5.4290	6.0108	6.5997	94	5.8840	6.5503	7.2299
45	5.4384	6.0221	6.6129	95	5.8927	6.5606	7.2419
46	5.4479	6.0333	6.6260	96	5.9014	6.5708	7.2538
47	5.4573	6.0445	6.6392	97	5.9100	6.5810	7.2657
48	5.4668	6.0558	6.6523	98	5.9187	6.5912	7.2776
49	5.4762	6.0669	6.6654	99	5.9273	6.6014	7.2894
50	5.4856	6.0781	6.6785	1.100	5.9359	6.6116	7.3012

$$a=\frac{r-(n-\mathbf{M})(r-1)}{n}\sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$\mathbf{M} = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=14$	$n=15$	$n=16$	r	$n=14$	$n=15$	$n=16$
1.001	6.5163	7.0187	7.5212	1.051	7.3018	7.9200	8.5460
2	6.5325	7.0373	7.5425	52	7.3169	7.9372	8.5656
3	6.5487	7.0559	7.5636	53	7.3319	7.9545	8.5851
4	6.5649	7.0745	7.5848	54	7.3470	7.9716	8.6046
5	6.5810	7.0931	7.6060	55	7.3620	7.9888	8.6240
6	6.5972	7.1117	7.6271	56	7.3769	8.0059	8.6434
7	6.6133	7.1302	7.6482	57	7.3919	8.0230	8.6628
8	6.6295	7.1487	7.6693	58	7.4068	8.0400	8.6821
9	6.6456	7.1672	7.6903	59	7.4216	8.0571	8.7013
10	6.6616	7.1857	7.7114	60	7.4365	8.0740	8.7206
1.011	6.6777	7.2041	7.7324	1.061	7.4513	8.0910	8.7398
12	6.6937	7.2225	7.7533	62	7.4661	8.1079	8.7589
13	6.7098	7.2410	7.7743	63	7.4808	8.1247	8.7780
14	6.7258	7.2593	7.7952	64	7.4956	8.1415	8.7970
15	6.7418	7.2777	7.8161	65	7.5103	8.1583	8.8160
16	6.7577	7.2960	7.8369	66	7.5249	8.1751	8.8350
17	6.7737	7.3143	7.8578	67	7.5396	8.1918	8.8539
18	6.7896	7.3326	7.8786	68	7.5542	8.2085	8.8727
19	6.8055	7.3509	7.8994	69	7.5687	8.2251	8.8916
20	6.8214	7.3691	7.9201	70	7.5833	8.2417	8.9103
1.021	6.8372	7.3873	7.9408	1.071	7.5978	8.2583	8.9290
22	6.8531	7.4055	7.9615	72	7.6123	8.2748	8.9477
23	6.8689	7.4236	7.9821	73	7.6267	8.2913	8.9663
24	6.8847	7.4418	8.0028	74	7.6411	8.3077	8.9849
25	6.9005	7.4599	8.0234	75	7.6555	8.3241	9.0034
26	6.9162	7.4779	8.0439	76	7.6699	8.3405	9.0219
27	6.9319	7.4960	8.0644	77	7.6842	8.3568	9.0404
28	6.9476	7.5140	8.0849	78	7.6985	8.3731	9.0587
29	6.9633	7.5320	8.1054	79	7.7127	8.3893	9.0771
30	6.9790	7.5500	8.1258	80	7.7269	8.4055	9.0954
1.031	6.9946	7.5679	8.1462	1.081	7.7411	8.4217	9.1136
32	7.0102	7.5858	8.1665	82	7.7553	8.4378	9.1318
33	7.0258	7.6037	8.1868	83	7.7694	8.4539	9.1499
34	7.0413	7.6215	8.2071	84	7.7835	8.4700	9.1680
35	7.0569	7.6393	8.2274	85	7.7976	8.4860	9.1861
36	7.0724	7.6571	8.2476	86	7.8116	8.5019	9.2041
37	7.0879	7.6748	8.2677	87	7.8256	8.5178	9.2220
38	7.1033	7.6926	8.2879	88	7.8396	8.5337	9.2399
39	7.1187	7.7103	8.3079	89	7.8535	8.5495	9.2577
40	7.1341	7.7279	8.3280	90	7.8674	8.5654	9.2755
1.041	7.1495	7.7455	8.3480	1.091	7.8812	8.5811	9.2933
42	7.1649	7.7631	8.3680	92	7.8951	8.5968	9.3110
43	7.1802	7.7807	8.3879	93	7.9089	8.6125	9.3286
44	7.1955	7.7982	8.4078	94	7.9226	8.6282	9.3462
45	7.2108	7.8157	8.4277	95	7.9364	8.6437	9.3637
46	7.2260	7.8332	8.4475	96	7.9500	8.6593	9.3812
47	7.2412	7.8506	8.4673	97	7.9637	8.6748	9.3987
48	7.2564	7.8680	8.4870	98	7.9773	8.6903	9.4160
49	7.2716	7.8854	8.5067	99	7.9909	8.7057	9.4334
50	7.2867	7.9027	8.5264	1.100	8.0045	8.7211	9.4507

$$a = \frac{r-(n-\mathbf{M})(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=17$	$n=18$	$n=19$	r	$n=17$	$n=18$	$n=19$
1.001	8.0240	8.5269	9.0300	1.051	9.1798	9.8213	10.4704
2	8.0480	8.5538	9.0599	52	9.2018	9.8459	10.4977
3	8.0719	8.5806	9.0899	53	9.2237	9.8704	10.5249
4	8.0958	8.6074	9.1198	54	9.2457	9.8948	10.5521
5	8.1197	8.6342	9.1496	55	9.2675	9.9192	10.5791
6	8.1435	8.6610	9.1794	56	9.2893	9.9436	10.6061
7	8.1674	8.6877	9.2092	57	9.3111	9.9679	10.6330
8	8.1912	8.7144	9.2390	58	9.3328	9.9921	10.6598
9	8.2149	8.7411	9.2687	59	9.3544	10.0162	10.6866
10	8.2387	8.7677	9.2983	60	9.3760	10.0403	10.7133
1.011	8.2624	8.7943	9.3280	1.061	9.3976	10.0643	10.7399
12	8.2861	8.8208	9.3575	62	9.4191	10.0883	10.7664
13	8.3097	8.8474	9.3871	63	9.4405	10.1122	10.7929
14	8.3334	8.8738	9.4166	64	9.4619	10.1360	10.8192
15	8.3569	8.9003	9.4461	65	9.4832	10.1597	10.8455
16	8.3805	8.9267	9.4755	66	9.5045	10.1834	10.8717
17	8.4040	8.9530	9.5048	67	9.5257	10.2071	10.8979
18	8.4275	8.9794	9.5342	68	9.5468	10.2306	10.9239
19	8.4510	9.0056	9.5635	69	9.5679	10.2541	10.9499
20	8.4744	9.0319	9.5927	70	9.5890	10.2775	10.9758
1.021	8.4977	9.0581	9.6219	1.071	9.6100	10.3009	11.0016
22	8.5211	9.0842	9.6510	72	9.6309	10.3242	11.0274
23	8.5444	9.1104	9.6801	73	9.6518	10.3474	11.0530
24	8.5677	9.1364	9.7091	74	9.6726	10.3705	11.0786
25	8.5909	9.1625	9.7381	75	9.6933	10.3936	11.1041
26	8.6141	9.1884	9.7670	76	9.7140	10.4166	11.1295
27	8.6372	9.2144	9.7959	77	9.7347	10.4396	11.1548
28	8.6603	9.2403	9.8247	78	9.7553	10.4624	11.1801
29	8.6834	9.2661	9.8534	79	9.7758	10.4852	11.2052
30	8.7064	9.2919	9.8821	80	9.7963	10.5080	11.2303
1.031	8.7294	9.3176	9.9108	1.081	9.8167	10.5306	11.2553
32	8.7524	9.3433	9.9394	82	9.8370	10.5532	11.2802
33	8.7753	9.3690	9.9679	83	9.8573	10.5757	11.3050
34	8.7981	9.3946	9.9963	84	9.8775	10.5982	11.3298
35	8.8209	9.4201	10.0247	85	9.8977	10.6206	11.3544
36	8.8437	9.4456	10.0531	86	9.9178	10.6429	11.3790
37	8.8665	9.4710	10.0814	87	9.9378	10.6651	11.4035
38	8.8891	9.4963	10.1096	88	9.9578	10.6872	11.4279
39	8.9118	9.5217	10.1378	89	9.9778	10.7093	11.4523
40	8.9344	9.5470	10.1658	90	9.9976	10.7311	11.4764
1.041	8.9569	9.5722	10.1939	1.091	10.0174	10.7533	11.5006
42	8.9794	9.5974	10.2218	92	10.0372	10.7752	11.5246
43	9.0019	9.6225	10.2497	93	10.0569	10.7969	11.5486
44	9.0243	9.6475	10.2776	94	10.0765	10.8187	11.5725
45	9.0466	9.6725	10.3053	95	10.0960	10.8403	11.5963
46	9.0690	9.6975	10.3330	96	10.1155	10.8619	11.6200
47	9.0912	9.7224	10.3606	97	10.1350	10.8834	11.6436
48	9.1134	9.7472	10.3882	98	10.1543	10.9048	11.6671
49	9.1356	9.7719	10.4157	99	10.1737	10.9262	11.6905
50	9.1577	9.7966	10.4431	1.100	10.1929	10.9474	11.7139

$$a = \frac{r-(n-M)(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=20$	$n=21$	$n=22$	r	$n=20$	$n=21$	$n=22$
1.001	9.5332	10.0367	10.5402	1.051	11.1272	11.7915	12.4632
2	9.5664	10.0733	10.5804	52	11.1573	11.8245	12.4992
3	9.5996	10.1110	10.6206	53	11.1873	11.8574	12.5352
4	9.6327	10.1464	10.6607	54	11.2172	11.8902	12.5710
5	9.6658	10.1828	10.7007	55	11.2470	11.9229	12.6067
6	9.6989	10.2193	10.7407	56	11.2768	11.9555	12.6423
7	9.7319	10.2557	10.7807	57	11.3064	11.9880	12.6777
8	9.7648	10.2920	10.8206	58	11.3360	12.0204	12.7131
9	9.7978	10.3283	10.8604	59	11.3655	12.0527	12.7483
10	9.8306	10.3646	10.9002	60	11.3949	12.0849	12.7834
1.011	9.8635	10.4008	10.9399	1.061	11.4241	12.1170	12.8184
12	9.8962	10.4369	10.9796	62	11.4534	12.1490	12.8532
13	9.9290	10.4730	11.0192	63	11.4825	12.1809	12.8879
14	9.9617	10.5090	11.0587	64	11.5115	12.2126	12.9225
15	9.9943	10.5450	11.0982	65	11.5404	12.2443	12.9570
16	10.0269	10.5809	11.1376	66	11.5693	12.2759	12.9914
17	10.0594	10.6168	11.1769	67	11.5980	12.3073	13.0256
18	10.0919	10.6526	11.2162	68	11.6267	12.3386	13.0597
19	10.1243	10.6883	11.2554	69	11.6552	12.3699	13.0937
20	10.1567	10.7240	11.2945	70	11.6837	12.4010	13.1275
1.021	10.1890	10.7596	11.3336	1.071	11.7121	12.4320	13.1612
22	10.2213	10.7952	11.3726	72	11.7403	12.4629	13.1948
23	10.2535	10.8306	11.4115	73	11.7685	12.4937	13.2283
24	10.2856	10.8660	11.4503	74	11.7966	12.5243	13.2616
25	10.3177	10.9014	11.4890	75	11.8246	12.5549	13.2948
26	10.3497	10.9366	11.5277	76	11.8525	12.5853	13.3279
27	10.3817	10.9718	11.5662	77	11.8803	12.6157	13.3608
28	10.4136	11.0069	11.6047	78	11.9080	12.6459	13.3936
29	10.4454	11.0420	11.6431	79	11.9356	12.6760	13.4263
30	10.4771	11.0769	11.6814	80	11.9631	12.7060	13.4588
1.031	10.5088	11.1118	11.7196	1.081	11.9905	12.7358	13.4912
32	10.5405	11.1466	11.7578	82	12.0178	12.7656	13.5235
33	10.5720	11.1813	11.7958	83	12.0450	12.7952	13.5556
34	10.6035	11.2160	11.8337	84	12.0721	12.8248	13.5876
35	10.6349	11.2505	11.8716	85	12.0991	12.8542	13.6195
36	10.6662	11.2850	11.9093	86	12.1260	12.8835	13.6512
37	10.6975	11.3194	11.9470	87	12.1528	12.9126	13.6828
38	10.7287	11.3537	11.9845	88	12.1795	12.9417	13.7143
39	10.7598	11.3879	12.0220	89	12.2061	12.9706	13.7456
40	10.7909	11.4221	12.0593	90	12.2326	12.9994	13.7768
1.041	10.8218	11.4561	12.0966	1.091	12.2589	13.0281	13.8078
42	10.8527	11.4901	12.1337	92	12.2852	13.0567	13.8387
43	10.8836	11.5239	12.1708	93	12.3114	13.0852	13.8695
44	10.9143	11.5578	12.2077	94	12.3375	13.1135	13.9002
45	10.9450	11.5914	12.2445	95	12.3635	13.1418	13.9307
46	10.9755	11.6250	12.2813	96	12.3894	13.1699	13.9610
47	11.0060	11.6585	12.3179	97	12.4152	13.1979	13.9913
48	11.0364	11.6919	12.3544	98	12.4409	13.2257	14.0213
49	11.0668	11.7252	12.3908	99	12.4664	13.2535	14.0513
50	11.0970	11.7584	12.4270	1.100	12.4919	13.2811	14.0811

$$a = \frac{r-(n-M)(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=23$	$n=24$	$n=25$	r	$n=23$	$n=24$	$n=25$
1.001	11.0440	11.5479	12.0520	1.051	13.1423	13.8286	14.5222
2	11.0879	11.5957	12.1039	52	13.1815	13.8711	14.5680
3	11.1318	11.6435	12.1558	53	13.2205	13.9133	14.6136
4	11.1756	11.6913	12.2076	54	13.2594	13.9555	14.6590
5	11.2194	11.7389	12.2593	55	13.2982	13.9974	14.7043
6	11.2631	11.7865	12.3110	56	13.3369	14.0393	14.7493
7	11.3068	11.8341	12.3626	57	13.3754	14.0809	14.7942
8	11.3504	11.8816	12.4141	58	13.4138	14.1224	14.8389
9	11.3940	11.9290	12.4655	59	13.4520	14.1638	14.8835
10	11.4374	11.9263	12.5169	60	13.4901	14.2049	14.9278
1.011	11.4809	12.0236	12.5682	1.061	13.5280	14.2460	14.9720
12	11.5242	12.0708	12.6194	62	13.5659	14.2868	15.0159
13	11.5675	12.1179	12.6705	63	13.6035	14.3275	15.0597
14	11.6107	12.1649	12.7215	64	13.6410	14.3680	15.1033
15	11.6538	12.2119	12.7724	65	13.6784	14.4084	15.1467
16	11.6969	12.2588	12.8232	66	13.7157	14.4486	15.1899
17	11.7399	12.3055	12.8740	67	13.7528	14.4886	15.2330
18	11.7828	12.3522	12.9246	68	13.7897	14.5285	15.2758
19	11.8256	12.3988	12.9751	69	13.8265	14.5681	15.3184
20	11.8683	12.4453	13.0255	70	13.8631	14.6077	15.3609
1.021	11.9110	12.4917	13.0759	1.071	13.8996	14.6470	15.4032
22	11.9535	12.5380	13.1260	72	13.9360	14.6862	15.4452
23	11.9960	12.5842	13.1761	73	13.9722	14.7252	15.4871
24	12.0384	12.6303	13.2261	74	14.0083	14.7640	15.5288
25	12.0807	12.6763	13.2759	75	14.0442	14.8027	15.5702
26	12.1229	12.7222	13.3256	76	14.0799	14.8412	15.6115
27	12.1650	12.7680	13.3752	77	14.1155	14.8795	15.6526
28	12.2070	12.8136	13.4247	78	14.1509	14.9176	15.6935
29	12.2489	12.8592	13.4740	79	14.1862	14.9556	15.7341
30	12.2907	12.9046	13.5232	80	14.2214	14.9934	15.7746
1.031	12.3324	12.9499	13.5723	1.081	14.2564	15.0310	15.8150
32	12.3739	12.9951	13.6212	82	14.2912	15.0684	15.8550
33	12.4154	13.0402	13.6700	83	14.3259	15.1057	15.8949
34	12.4568	13.0851	13.7187	84	14.3604	15.1428	15.9345
35	12.4981	13.1299	13.7672	85	14.3948	15.1797	15.9740
36	12.5392	13.1746	13.8155	86	14.4290	15.2164	16.0133
37	12.5803	13.2192	13.8637	87	14.4630	15.2530	16.0524
38	12.6212	13.2636	13.9118	88	14.4969	15.2894	16.0913
39	12.6620	13.3079	13.9597	89	14.5307	15.3256	16.1300
40	12.7027	13.3521	14.0075	90	14.5643	15.3616	16.1684
1.041	12.7433	13.3961	14.0551	1.091	14.5977	15.3974	16.2067
42	12.7837	13.4400	14.1025	92	14.6310	15.4331	16.2447
43	12.8241	13.4838	14.1498	93	14.6641	15.4686	16.2826
44	12.8643	13.5274	14.1969	94	14.6970	15.5039	16.3203
45	12.9044	13.5709	14.2439	95	14.7299	15.5390	16.3577
46	12.9444	13.6142	14.2907	96	14.7625	15.5739	16.3950
47	12.9842	13.6574	14.3373	97	14.7950	15.6087	16.4321
48	13.0239	13.7004	14.3838	98	14.8273	15.6433	16.4686
49	13.0635	13.7433	14.4301	99	14.8595	15.6777	16.5056
50	13.1029	13.7860	14.4762	1.100	14.8915	15.7119	16.5420

$$a = \frac{r-(n-M)(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=26$	$n=27$	$n=28$	r	$n=26$	$n=27$	$n=28$
1.001	12.5562	13.0606	13.5652	1.051	15.2229	15.9306	16.6452
2	12.6124	13.1212	13.6304	52	15.2721	15.9833	16.7016
3	12.6685	13.1817	13.6954	53	15.3211	16.0358	16.7577
4	12.7245	13.2421	13.7604	54	15.3699	16.0881	16.8136
5	12.7805	13.3025	13.8253	55	15.4185	16.1402	16.8691
6	12.8364	13.3627	13.8901	56	15.4670	16.1920	16.9245
7	12.8922	13.4229	13.9549	57	15.5152	16.2437	16.9796
8	12.9479	13.4830	14.0195	58	15.5632	16.2950	17.0344
9	13.0035	13.5430	14.0840	59	15.6110	16.3462	17.0889
10	13.0591	13.6029	14.1484	60	15.6586	16.3971	17.1432
1.011	13.1145	13.6627	14.2127	1.061	15.7059	16.4477	17.1972
12	13.1699	13.7224	14.2769	62	15.7531	16.4981	17.2509
13	13.2252	13.7820	14.3410	63	15.8000	16.5483	17.3044
14	13.2803	13.8415	14.4049	64	15.8468	16.5983	17.3576
15	13.3354	13.9008	14.4687	65	15.8933	16.6480	17.4105
16	13.3903	13.9600	14.5323	66	15.9396	16.6974	17.4632
17	13.4452	14.0191	14.5959	67	15.9857	16.7466	17.5156
18	13.4999	14.0781	14.6592	68	16.0316	16.7956	17.5677
19	13.5545	14.1370	14.7225	69	16.0772	16.8443	17.6195
20	13.6090	14.1957	14.7855	70	16.1227	16.8928	17.6711
1.021	13.6634	14.2542	14.8485	1.071	16.1679	16.9410	17.7223
22	13.7176	14.3127	14.9112	72	16.2129	16.9890	17.7733
23	13.7717	14.3709	14.9738	73	16.2577	17.0367	17.8240
24	13.8257	14.4291	15.0362	74	16.3022	17.0842	17.8745
25	13.8795	14.4870	15.0985	75	16.3465	17.1314	17.9246
26	13.9332	14.5448	15.1606	76	16.3906	17.1784	17.9745
27	13.9867	14.6025	15.2225	77	16.4345	17.2251	18.0241
28	14.0401	14.6600	15.2842	78	16.4782	17.2716	18.0734
29	14.0934	14.7173	15.3457	79	16.5216	17.3178	18.1224
30	14.1465	14.7745	15.4070	80	16.5648	17.3637	18.1711
1.031	14.1995	14.8314	15.4682	1.081	16.6078	17.4094	18.2196
32	14.2523	14.8882	15.5291	82	16.6506	17.4549	18.2677
33	14.3049	14.9449	15.5898	83	16.6931	17.5001	18.3156
34	14.3574	15.0013	15.6504	84	16.7354	17.5450	18.3632
35	14.4097	15.0576	15.7107	85	16.7775	17.5897	18.4105
36	14.4619	15.1136	15.7708	86	16.8193	17.6342	18.4576
37	14.5139	15.1695	15.8307	87	16.8609	17.6783	18.5043
38	14.5657	15.2252	15.8904	88	16.9023	17.7223	18.5508
39	14.6173	15.2807	15.9498	89	16.9435	17.7659	18.5970
40	14.6688	15.3360	16.0091	90	16.9844	17.8094	18.6429
1.041	14.7201	15.3911	16.0681	1.091	17.0252	17.8525	18.6885
42	14.7712	15.4460	16.1269	92	17.0656	17.8954	18.7338
43	14.8221	15.5007	16.1854	93	17.1059	17.9381	18.7788
44	14.8729	15.5552	16.2438	94	17.1459	17.9805	18.8236
45	14.9235	15.6095	16.3018	95	17.1857	18.0226	18.8681
46	14.9738	15.6635	16.3597	96	17.2253	18.0645	18.9123
47	15.0240	15.7174	16.4173	97	17.2647	18.1062	18.9562
48	15.0740	15.7710	16.4746	98	17.3038	18.1475	18.9998
49	15.1238	15.8244	16.5318	99	17.3427	18.1887	19.0432
50	15.1734	15.8776	16.5886	1.100	17.3814	18.2296	19.0863

$$a = \frac{r-(n-M)(r-1)}{n} \sum_{o}^{n-1} y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=29$	$n=30$	$n=31$	r	$n=29$	$n=30$	$n=31$
1.001	14.0700	14.5749	15.0800	1.051	17.3667	18.0950	18.8299
2	14.1399	14.6497	15.1598	52	17.4268	18.1588	18.8976
3	14.2097	14.7244	15.2396	53	17.4866	18.2223	18.9649
4	14.2794	14.7990	15.3193	54	17.5461	18.2855	19.0319
5	14.3490	14.8735	15.3988	55	17.6052	18.3484	19.0985
6	14.4185	14.9479	15.4783	56	17.6642	18.4109	19.1647
7	14.4880	15.0222	15.5576	57	17.7228	18.4731	19.2306
8	14.5573	15.0964	15.6368	58	17.7811	18.5350	19.2961
9	14.6265	15.1704	15.7159	59	17.8391	18.5966	19.3612
10	14.6956	15.2443	15.7948	60	17.8968	18.6578	19.4260
1.011	14.7645	15.3181	15.8735	1.061	17.9542	18.7187	19.4904
12	14.8333	15.3917	15.9521	62	18.0114	18.7792	19.5544
13	14.9020	15.4652	16.0305	63	18.0682	18.8394	19.6180
14	14.9706	15.5385	16.1088	64	18.1247	18.8993	19.6813
15	15.0390	15.6117	16.1869	65	18.1809	18.9588	19.7442
16	15.1072	15.6847	16.2648	66	18.2368	19.0180	19.8067
17	15.1753	15.7575	16.3425	67	18.2924	19.0768	19.8688
18	15.2433	15.8302	16.4200	68	18.3477	19.1354	19.9306
19	15.3110	15.9026	16.4973	69	18.4026	19.1935	19.9919
20	15.3786	15.9749	16.5743	70	18.4573	19.2513	20.0529
1.021	15.4460	16.0470	16.6512	1.071	18.5117	19.3088	20.1135
22	15.5133	16.1188	16.7278	72	18.5657	19.3659	20.1737
23	15.5803	16.1905	16.8043	73	18.6194	19.4227	20.2336
24	15.6472	16.2619	16.8804	74	18.6728	19.4791	20.2930
25	15.7139	16.3332	16.9564	75	18.7259	19.5352	20.3521
26	15.7803	16.4042	17.0321	76	18.7787	19.5909	20.4107
27	15.8466	16.4750	17.1075	77	18.8312	19.6463	20.4690
28	15.9127	16.5455	17.1827	78	18.8834	19.7013	20.5269
29	15.9785	16.6158	17.2576	79	18.9352	19.7560	20.5844
30	16.0442	16.6859	17.3322	80	18.9867	19.8103	20.6416
1.031	16.1096	16.7558	17.4066	1.081	19.0379	19.8643	20.6983
32	16.1748	16.8253	17.4807	82	19.0888	19.9179	20.7547
33	16.2398	16.8947	17.5545	83	19.1394	19.9712	20.8106
34	16.3045	16.9638	17.6280	84	19.1897	20.0241	20.8662
35	16.3690	17.0326	17.7013	85	19.2396	20.0767	20.9214
36	16.4333	17.1011	17.7742	86	19.2892	20.1289	20.9763
37	16.4973	17.1694	17.8468	87	19.3386	20.1808	21.0307
38	16.5611	17.2374	17.9192	88	19.3876	20.2323	21.0847
39	16.6247	17.3051	17.9912	89	19.4363	20.2835	21.1384
40	16.6880	17.3726	18.0629	90	19.4846	20.3343	21.1917
1.041	16.7510	17.4397	18.1343	1.091	19.5327	20.3848	21.2446
42	16.8138	17.5066	18.2054	92	19.5804	20.4350	21.2971
43	16.8763	17.5732	18.2761	93	19.6279	20.4848	21.3493
44	16.9385	17.6395	18.3465	94	19.6750	20.5342	21.4011
45	17.0005	17.7055	18.4166	95	19.7218	20.5833	21.4525
46	17.0623	17.7712	18.4863	96	19.7683	20.6321	21.5035
47	17.1237	17.8366	18.5558	97	19.8145	20.6805	21.5541
48	17.1849	17.9016	18.6248	98	19.8603	20.7286	21.6044
49	17.2458	17.9664	18.6935	99	19.9059	20.7764	21.6543
50	17.3064	18.0309	18.7619	1.100	19.9511	20.8238	21.7038

$$a = \frac{r-(n-M)\,(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$=32$	$n=33$	$n=34$	r	$n=32$	$n=33$	$n=34$
1.001	15.5852	16.0906	16.5962	1.051	19.5714	20.3194	21.0738
2	15.6703	16.1811	16.6923	52	19.6430	20.3950	21.1533
3	15.7553	16.2715	16.7883	53	19.7142	20.4701	21.2324
4	15.8402	16.3619	16.8841	54	19.7850	20.5448	21.3111
5	15.9250	16.4520	16.9798	55	19.8554	20.6190	21.3892
6	16.0097	16.5420	17.0754	56	19.9254	20.6928	21.4668
7	16.0942	16.6319	17.1708	57	19.9950	20.7661	21.5440
8	16.1786	16.7216	17.2660	58	20.0641	20.8390	21.6206
9	16.2628	16.8112	17.3610	59	20.1329	20.9115	21.6968
10	16.3468	16.9005	17.4559	60	20.2012	20.9834	21.7724
1.011	16.4307	16.9897	17.5506	1.061	20.2692	21.0550	21.8476
12	16.5144	17.0787	17.6450	62	20.3367	21.1261	21.9223
13	16.5980	17.1675	17.7392	63	20.4038	21.1967	21.9964
14	16.6813	17.2561	17.8332	64	20.4705	21.2668	22.0700
15	16.7645	17.3445	17.9269	65	20.5368	21.3365	22.1432
16	16.8474	17.4326	18.0204	66	20.6027	21.4058	22.2158
17	16.9301	17.5205	18.1137	67	20.6681	21.4745	22.2879
18	17.0126	17.6082	18.2066	68	20.7331	21.5429	22.3596
19	17.0949	17.6956	18.2993	69	20.7977	21.6107	22.4307
20	17.1770	17.7828	18.3917	70	20.8619	21.6781	22.5013
1.021	17.2588	17.8697	18.4839	1.071	20.9257	21.7450	22.5714
22	17.3403	17.9563	18.5757	72	20.9890	21.8115	22.6409
23	17.4216	18.0426	18.6672	73	21.0519	21.8774	22.7100
24	17.5027	18.1286	18.7583	74	21.1144	21.9430	22.7786
25	17.5834	18.2144	18.8492	75	21.1764	22.0080	22.8466
26	17.6639	18.2998	18.9397	76	21.2381	22.0726	22.9142
27	17.7442	18.3849	19.0299	77	21.2993	22.1367	22.9812
28	17.8241	18.4698	19.1197	78	21.3600	22.2004	23.0477
29	17.9037	18.5542	19.2091	79	21.4204	22.2636	23.1137
30	17.9831	18.6384	19.2982	80	21.4803	22.3263	23.1792
1.031	18.0621	18.7222	19.3869	1.081	21.5398	22.3886	23.2443
32	18.1408	18.8057	19.4753	82	21.5989	22.4504	23.3088
33	18.2192	18.8888	19.5632	83	21.6576	22.5117	23.3727
34	18.2973	18.9716	19.6508	84	21.7158	22.5726	23.4362
35	18.3751	19.0540	19.7380	85	21.7736	22.6330	23.4992
36	18.4525	19.1360	19.8247	86	21.8310	22.6929	23.5617
37	18.5296	19.2177	19.9111	87	21.8880	22.7524	23.6237
38	18.6064	19.2990	19.9970	88	21.9446	22.8115	23.6852
39	18.6828	19.3799	20.0825	89	22.0007	22.8701	23.7462
40	18.7589	19.4604	20.1676	90	22.0564	22.9282	23.8067
1.041	18.8346	19.5406	20.2522	1.091	22.1117	22.9859	23.8667
42	18.9099	19.6203	20.3364	92	22.1666	23.0431	23.9263
43	18.9849	19.6996	20.4202	93	22.2211	23.0999	23.9853
44	19.0596	19.7786	20.5035	94	22.2752	23.1562	24.0438
45	19.1338	19.8571	20.5863	95	22.3288	23.2121	24.1019
46	19.2077	19.9352	20.6687	96	22.3820	23.2675	24.1595
47	19.2812	20.0129	20.7507	97	22.4349	23.3225	24.2166
48	19.3544	20.0902	20.8322	98	22.4873	23.3770	24.2732
49	19.4271	20.1670	20.9132	99	22.5393	23.4311	24.3294
50	19.4995	20.2434	20.9937	1.100	22.5909	23.4848	24.3851

$$a = \frac{r-(n-M)\,(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{|0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=35$	$n=36$	$n=37$	r	$n=35$	$n=36$	$n=37$
1.001	17.1019	17.6079	18.1140	1.051	21.8344	22.6012	23.3741
2	17.2038	17.7156	18.2278	52	21.9181	22.6890	23.4660
3	17.3055	17.8232	18.3414	53	22.0012	22.7762	23.5574
4	17.4071	17.9307	18.4549	54	22.0838	22.8628	23.6481
5	17.5085	18.0380	18.5683	55	22.1659	22.9489	23.7381
6	17.6097	18.1451	18.6814	56	22.2474	23.0343	23.8276
7	17.7108	18.2520	18.7943	57	22.3284	23.1192	23.9163
8	17.8117	18.3587	18.9071	58	22.4088	23.2035	24.0045
9	17.9124	18.4652	19.0195	59	22.4887	23.2872	24.0919
10	18.0130	18.5715	19.1318	60	22.5681	23.3702	24.1787
1.011	18.1132	18.6776	19.2438	1.061	22.6469	23.4527	24.2649
12	18.2132	18.7833	19.3555	62	22.7251	23.5346	24.3504
13	18.3130	18.8889	19.4669	63	22.8029	23.6159	24.4353
14	18.4125	18.9941	19.5780	64	22.8800	23.6965	24.5195
15	18.5118	19.0991	19.6888	65	22.9566	23.7766	24.6030
16	18.6108	19.2037	19.7992	66	23.0326	23.8561	24.6859
17	18.7095	19.3081	19.9094	67	23.1081	23.9349	24.7682
18	18.8079	19.4121	20.0191	68	23.1831	24.0132	24.8497
19	18.9061	19.5158	20.1285	69	23.2574	24.0908	24.9306
20	19.0039	19.5191	20.2375	70	23.3313	24.1679	25.0109
1.021	19.1013	19.7221	20.3462	1.071	23.4045	24.2443	25.0905
22	19.1985	19.8247	20.4544	72	23.4772	24.3201	25.1695
23	19.2953	19.9270	20.5622	73	23.5494	24.3954	25.2477
24	19.3917	20.0288	20.6696	74	23.6210	24.4700	25.3254
25	19.4878	20.1303	20.7765	75	23.6920	24.5440	25.4024
26	19.5835	20.2313	20.8830	76	23.7625	24.6174	25.4787
27	19.6789	20.3319	20.9891	77	23.8324	24.6902	25.5544
28	19.7738	20.4321	21.0946	78	23.9018	24.7625	25.6294
29	19.8684	20.5319	21.1997	79	23.9707	24.8341	25.7038
30	19.9625	20.6312	21.3043	80	24.0389	24.9051	25.7775
1.031	20.0562	20.7301	21.4084	1.081	24.1067	24.9755	25.8506
32	20.1496	20.8285	21.5120	82	24.1738	25.0454	25.9231
33	20.2424	20.9264	21.6151	83	24.2405	25.1146	25.9949
34	20.3349	21.0239	21.7177	84	24.3066	25.1833	26.0661
35	20.4269	21.1209	21.8197	85	24.3721	25.2513	26.1367
36	20.5185	21.2173	21.9212	86	24.4371	25.3188	26.2066
37	20.6096	21.3133	22.0221	87	24.5016	25.3857	26.2759
38	20.7003	21.4089	22.1225	88	24.5655	25.4520	26.3445
39	20.7904	21.5037	22.2223	89	24.6289	25.5177	26.4126
40	20.8802	21.5982	22.3216	90	24.6917	25.5829	26.4800
1.041	20.9694	21.6921	22.4203	1.091	24.7540	25.6475	26.5468
42	21.0581	21.7855	22.5184	92	24.8158	25.7115	26.6130
43	21.1464	21.8783	22.6159	93	24.8771	25.7750	26.6786
44	21.2342	21.9706	22.7128	94	24.9378	25.8379	26.7436
45	21.3215	22.0624	22.8091	95	24.9980	25.9002	26.8080
46	21.4082	22.1536	22.9048	96	25.0577	25.9619	26.8718
47	21.4945	22.2443	22.9999	97	25.1169	26.0232	26.9350
48	21.5802	22.3343	23.0944	98	25.1756	26.0838	26.9976
49	21.6655	22.4239	23.1882	99	25.2338	26.1439	27.0598
50	21.7502	22.5128	23.2814	1.100	25.2914	26.2035	27.1213

$$a = \frac{r-(n-M)\,(r-1)}{\quad} \sum_{9}^{n-1} {}_o y_i$$

Mean Value Table to Fit Exponential Growth Curve $y = ar^x$ to n Observed Statistical Ordinates

$$M = \sum_{0}^{n-1} x_i \cdot {}_o y_i \Big/ \sum_{0}^{n-1} {}_o y_i = n/(1-r^{-n}) - 1/(1-r^{-1})$$

r	$n=38$	$n=39$	$n=40$	r	$n=38$	$n=39$	$n=40$
1.001	18.6202	19.1266	19.6332	1.051	24.1529	24.9376	25.7281
2	18.7402	19.2531	19.7662	52	24.2491	25.0380	25.8328
3	18.8601	19.3793	19.8991	53	24.3446	25.1377	25.9367
4	18.9799	19.5055	20.0317	54	24.4394	25.2367	26.0398
5	19.0994	19.6314	20.1642	55	24.5335	25.3348	26.1421
6	19.2187	19.7570	20.2964	56	24.6269	25.4323	26.2435
7	19.3378	19.8825	20.4283	57	24.7196	25.5289	26.3441
8	19.4567	20.0077	20.5600	58	24.8116	25.6248	26.4439
9	19.5753	20.1326	20.6913	59	24.9029	25.7199	26.5429
10	19.6937	20.2572	20.8224	60	24.9935	25.8143	26.6410
1.011	19.8118	20.3815	20.9531	1.061	25.0834	25.9079	26.7383
12	19.9295	20.5055	21.0835	62	25.1725	26.0007	26.8348
13	20.0470	20.6292	21.2135	63	25.2610	26.0927	26.9304
14	20.1641	20.7525	21.3431	64	25.3487	26.1840	27.0252
15	20.2809	20.8754	21.4723	65	25.4357	26.2745	27.1192
16	20.3973	20.9979	21.6010	66	25.5220	26.3642	27.2124
17	20.5133	21.1200	21.7294	67	25.6076	26.4532	27.3047
18	20.6290	21.2417	21.8572	68	25.6925	26.5414	27.3962
19	20.7442	21.3629	21.9846	69	25.7767	26.6288	27.4868
20	20.8591	21.4837	22.1115	70	25.8602	26.7155	27.5767
1.021	20.9735	21.6041	22.2379	1.071	25.9429	26.8014	27.6657
22	21.0875	21.7239	22.3637	72	26.0250	26.8865	27.7538
23	21.2010	21.8432	22.4890	73	26.1063	26.9709	27.8412
24	21.3140	21.9621	22.6138	74	26.1869	27.0545	27.9278
25	21.4266	22.0804	22.7380	75	26.2669	27.1373	28.0135
26	21.5387	22.1982	22.8616	76	26.3461	27.2194	28.0984
27	21.6502	22.3154	22.9846	77	26.4246	27.3007	28.1825
28	21.7613	22.4321	23.1070	78	26.5024	27.3813	28.2659
29	21.8718	22.5482	23.2287	79	26.5796	27.4612	28.3484
30	21.9818	22.6637	23.3498	80	26.6560	27.5403	28.4301
1.031	22.0913	22.7786	23.4703	1.081	26.7317	27.6186	28.5110
32	22.2002	22.8929	23.5901	82	26.8068	27.6962	28.5911
33	22.3085	23.0066	23.7093	83	26.8812	27.7731	28.6705
34	22.4163	23.1196	23.8277	84	26.9548	27.8492	28.7490
35	22.5235	23.2321	23.9455	85	27.0278	27.9246	28.8268
36	22.6301	23.3438	24.0625	86	27.1002	27.9991	28.9038
37	22.7360	23.4550	24.1789	87	27.1718	28.0733	28.9801
38	22.8414	23.5654	24.2945	88	27.2428	28.1466	29.0556
39	22.9462	23.6752	24.4094	89	27.3137	28.2191	29.1303
40	23.0503	23.7843	24.5235	90	27.3828	28.2910	29.2043
1.041	23.1538	23.8927	24.6369	1.091	27.4518	28.3621	29.2775
42	23.2567	24.0004	24.7495	92	27.5201	28.4325	29.3500
43	23.3589	24.1075	24.8614	93	27.5878	28.5023	29.4217
44	23.4605	24.2138	24.9725	94	27.6549	28.5713	29.4927
45	23.5614	24.3194	25.0828	95	27.7213	28.6397	29.5630
46	23.6617	24.4242	25.1923	96	27.7871	28.7074	29.6326
47	23.7613	24.5284	25.3011	97	27.8522	28.7744	29.7014
48	23.8602	24.6318	25.4090	98	27.9167	28.8408	29.7696
49	23.9584	24.7345	25.5162	99	27.9806	28.9065	29.8370
50	24.0560	24.8364	25.6225	1.100	28.0438	28.9715	29.9038

$$a = \frac{r-(n-M)\,(r-1)}{n} \sum_{0}^{n-1} {}_o y_i$$

Logarithm of Factorial n from $n=1$ to $n=1000$ by Unit Intervals

n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$
1	0.000 0000	51	66.190 6450	101	159.974 3250	151	264.935 8704
2	0.301 0300	52	67.906 6484	102	161.982 9252	152	267.117 7139
3	0.778 1513	53	69.630 9243	103	163.995 7624	153	269.302 4054
4	1.380 2112	54	71.363 3180	104	166.012 7958	154	271.489 9261
5	2.079 1812	55	73.103 6807	105	168.033 9851	155	273.680 2578
6	2.857 3325	56	74.851 8687	106	170.059 2909	156	275.873 3824
7	3.702 4305	57	76.607 7436	107	172.088 6747	157	278.069 2820
8	4.605 5205	58	78.371 1716	108	174.122 0985	158	280.267 9391
9	5.559 7630	59	80.142 0236	109	176.159 5250	159	282.469 3363
10	6.559 7630	60	81.920 1748	110	178.200 9176	160	284.673 4562
11	7.601 1557	61	83.705 5047	111	180.246 2406	161	286.880 2821
12	8.680 3370	62	85.497 8964	112	182.295 4586	162	289.089 7971
13	9.794 2803	63	87.297 2369	113	184.348 5371	163	291.301 9847
14	10.940 4084	64	89.103 4169	114	186.405 4419	164	293.516 8286
15	12.116 4996	65	90.916 3303	115	188.466 1398	165	295.734 3125
16	13.320 6196	66	92.735 8742	116	190.530 5978	166	297.954 4206
17	14.551 0685	67	94.561 9490	117	192.598 7836	167	300.177 1371
18	15.806 3410	68	96.394 4579	118	194.670 6656	168	302.402 4464
19	17.085 0946	69	98.233 3070	119	196.746 2126	169	304.630 3331
20	18.386 1246	70	100.078 4050	120	198.825 3938	170	306.860 7820
21	19.708 3439	71	101.929 6634	121	200.908 1792	171	309.093 7781
22	21.050 7666	72	103.786 9959	122	202.994 5390	172	311.329 3066
23	22.412 4944	73	105.650 3187	123	205.084 4442	173	313.567 3527
24	23.792 7057	74	107.519 5505	124	207.177 8658	174	315.807 9019
25	25.190 6457	75	109.394 6117	125	209.274 7759	175	318.050 9400
26	26.605 6190	76	111.275 4253	126	211.375 1464	176	320.296 4526
27	28.036 9828	77	113.161 9160	127	213.478 9501	177	322.544 4259
28	29.484 1408	78	115.054 0106	128	215.586 1601	178	324.794 8459
29	30.946 5388	79	116.951 6377	129	217.696 7498	179	327.047 6989
30	32.423 6601	80	118.854 7277	130	219.810 6932	180	329.302 9714
31	33.915 0218	81	120.763 2127	131	221.927 9645	181	331.560 6500
32	35.420 1717	82	122.677 0266	132	224.048 5384	182	333.820 7214
33	36.938 6857	83	124.596 1047	133	226.172 3900	183	336.083 1725
34	38.470 1646	84	126.520 3840	134	228.299 4948	184	338.347 9903
35	40.014 2326	85	128.449 8029	135	230.429 8286	185	340.615 1620
36	41.570 5351	86	130.384 3013	136	232.563 3675	186	342.884 6750
37	43.138 7369	87	132.323 8206	137	234.700 0881	187	345.156 5166
38	44.718 5205	88	134.268 3033	138	236.839 9672	188	347.430 6744
39	46.309 5851	89	136.217 6933	139	238.982 9820	189	349.707 1362
40	47.911 6451	90	138.171 9358	140	241.129 1100	190	351.985 8898
41	49.524 4289	91	140.130 9772	141	243.278 3291	191	354.266 9232
42	51.147 6782	92	142.094 7650	142	245.430 6174	192	356.550 2244
43	52.781 1467	93	144.063 2480	143	247.585 9535	193	358.835 7817
44	54.424 5993	94	146.036 3758	144	249.744 3160	194	361.123 5835
45	56.077 8119	95	148.014 0994	145	251.905 6840	195	363.413 6181
46	57.740 5697	96	149.996 3707	146	254.070 0368	196	365.705 8742
47	59.412 6676	97	151.983 1424	147	256.237 3542	197	368.000 3404
48	61.093 9088	98	153.974 3685	148	258.407 6159	198	370.297 0056
49	62.784 1049	99	155.970 0037	149	260.580 8022	199	372.595 8586
50	64.483 0749	100	157.970 0037	150	262.756 8934	200	374.896 8886

Logarithm of Factorial n from $n=1$ to $n=1000$ by Unit Intervals

n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$
201	377.200 0847	251	494.909 2601	301	616.964 3695	351	742.637 2813
202	379.505 4361	252	497.310 6607	302	619.444 3765	352	745.183 8240
203	381.812 9321	253	499.713 7812	303	621.925 8191	353	747.731 5987
204	384.122 5623	254	502.118 6149	304	624.408 6927	354	750.280 6020
205	386.434 3161	255	504.525 1551	305	626.892 9925	355	752.830 8303
206	388.748 1834	256	506.933 3950	306	629.378 7140	356	755.382 2803
207	391.064 1537	257	509.343 3282	307	631.865 8523	357	757.934 9485
208	393.382 2170	258	511.754 9479	308	634.354 4031	358	760.488 8316
209	395.702 3633	259	514.168 2476	309	636.844 3615	359	763.043 9260
210	398.024 5826	260	516.583 2210	310	639.335 7232	360	765.600 2285
211	400.348 8651	261	518.999 8615	311	641.828 4836	361	768.157 7357
212	402.675 2009	262	521.418 1628	312	644.322 6382	362	770.716 4443
213	405.003 5805	263	523.838 1185	313	646.818 1825	363	773.276 3509
214	407.333 9943	264	526.259 7225	314	649.315 1122	364	775.837 4523
215	409.666 4328	265	528.682 9683	315	651.813 4227	365	778.399 7452
216	412.000 8865	266	531.107 8500	316	654.313 1098	366	780.963 2262
217	414.337 3463	267	533.534 3612	317	656.814 1691	367	783.527 8923
218	416.675 8027	268	535.962 4960	318	659.316 5962	368	786.093 7401
219	419.016 2469	269	538.392 2483	319	661.820 3869	369	788.660 7665
220	421.358 6695	270	540.823 6121	320	664.325 5369	370	791.228 9682
221	423.703 0618	271	543.256 5814	321	666.832 0419	371	793.798 3421
222	426.049 4148	272	545.691 1503	322	669.339 8978	372	796.368 8851
223	428.397 7197	273	548.127 3129	323	671.849 1003	373	798.940 5939
224	430.747 9677	274	550.565 0635	324	674.359 6453	374	801.513 4655
225	433.100 1502	275	553.004 3962	325	676.871 5287	375	804.087 4968
226	435.454 2586	276	555.445 3052	326	679.384 7463	376	806.662 6846
227	437.810 2845	277	557.887 7850	327	681.899 2940	377	809.239 0260
228	440.168 2193	278	560.331 8298	328	684.415 1679	378	811.816 5178
229	442.528 0548	279	562.777 4340	329	686.932 3638	379	814.395 1570
230	444.889 7827	280	565.224 5920	330	689.450 8777	380	816.974 9406
231	447.253 3946	281	567.673 2984	331	691.970 7057	381	819.555 8655
232	449.618 8826	282	570.123 5475	332	694.491 8438	382	822.137 9289
233	451.986 2385	283	572.575 3339	333	697.014 2880	383	824.721 1277
234	454.355 4544	284	575.028 6523	334	699.538 0345	384	827.305 4589
235	456.726 5223	285	577.483 4971	335	702.063 0793	385	829.890 9196
236	459.099 4343	286	579.939 8631	336	704.589 4186	386	832.477 5069
237	461.474 1826	287	582.397 7450	337	707.117 0485	387	835.065 2179
238	463.850 7596	288	584.857 1375	338	709.645 9652	388	837.654 0496
239	466.229 1575	289	587.318 0354	339	712.176 1649	389	840.243 9992
240	468.609 3687	290	589.780 4334	340	714.707 6438	390	842.835 0638
241	470.991 3857	291	592.244 3264	341	717.240 3982	391	845.427 2406
242	473.375 2011	292	594.709 7092	342	719.774 4243	392	848.020 5267
243	475.760 8074	293	597.176 5768	343	722.309 7184	393	850.614 9192
244	478.148 1972	294	599.644 9242	344	724.846 2768	394	853.210 4154
245	480.537 3633	295	602.114 7462	345	727.384 0959	395	855.807 0125
246	482.928 2984	296	604.586 0379	346	729.923 1720	396	858.404 7077
247	485.320 9954	297	607.058 7943	347	732.463 5015	397	861.003 4982
248	487.715 4470	298	609.533 0106	348	735.005 0807	398	863.603 3813
249	490.111 6464	299	612.008 6818	349	737.547 9062	399	866.204 3542
250	492.509 5864	300	614.485 8030	350	740.091 9742	400	868.806 4142

Logarithm of Factorial n from $n=1$ to $n=1000$ by Unit Intervals

n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$
401	871.409 5586	451	1 002.893 0675	501	1 136.786 2463	551	1 272.848 0029
402	874.013 7846	452	1 005.548 2059	502	1 139.486 9500	552	1 275.589 9419
403	876.619 0896	453	1 008.204 3041	503	1 142 188 5180	553	1 278.332 6671
404	879.225 4710	454	1 010.861 3600	504	1 144.890 9485	554	1 281.076 1768
405	881.832 9260	455	1 013.519 3714	505	1 147.594 2399	555	1 283.820 4698
406	884.441 4521	456	1 016.178 3362	506	1 150.298 3904	556	1 286.565 5446
407	887.051 0465	457	1 018.838 2524	507	1 153.003 3984	557	1 289.311 3998
408	889.661 7066	458	1 021.499 1179	508	1 155.709 2621	558	1 292.058 0340
409	892.273 4300	459	1 024.160 9306	509	1 158.415 9798	559	1 294.805 4458
410	894.886 2138	460	1 026.823 6884	510	1 161.123 5500	560	1 297.553 6338
411	897.500 0556	461	1 029.487 3893	511	1 163.831 9709	561	1 300.302 5967
412	900.114 9528	462	1 032.152 0313	512	1 166.541 2409	562	1 303.052 3330
413	902.730 9029	463	1 034.817 6123	513	1 169.251 3583	563	1 305.802 8415
414	905.347 9032	464	1 037.484 1303	514	1 171.962 3214	564	1 308.554 1205
415	907.965 9513	465	1 040.151 5832	515	1 174.674 1286	565	1 311.306 1690
416	910.585 0447	466	1 042.819 9692	516	1 177.386 7783	566	1 314.058 9854
417	913.205 1807	467	1 045.489 2860	517	1 180.100 2688	567	1 316.812 5684
418	915.826 3570	468	1 048.159 5319	518	1 182.814 5986	568	1 319.566 9168
419	918.448 5710	469	1 050.830 7047	519	1 185.529 7660	569	1 322.322 0290
420	921.071 8203	470	1 053.502 8026	520	1 188.245 7693	570	1 325.077 9039
421	923.696 1024	471	1 056.175 8235	521	1 190.962 6070	571	1 327.834 5400
422	926.321 4149	472	1 058.849 7655	522	1 193.680 2775	572	1 330.591 9360
423	928.947 7552	473	1 061.524 6266	523	1 196.398 7792	573	1 333.350 0907
424	931.575 1211	474	1 064.200 4050	524	1 199.118 1105	574	1 336.109 0026
425	934.203 5100	475	1 066.877 0986	525	1 201.838 2698	575	1 338.868 6704
426	936.832 9196	476	1 069.554 7056	526	1 204.559 2556	576	1 341.629 0929
427	939.463 3475	477	1 072.233 2239	527	1 207.281 0662	577	1 344.390 2687
428	942.094 7913	478	1 074.912 6518	528	1 210.003 7001	578	1 347.152 1965
429	944.727 2486	479	1 077.592 9873	529	1 212.727 1558	579	1 349.914 8751
430	947.360 7170	480	1 080.274 2286	530	1 215.451 4316	580	1 352.678 3031
431	949.995 1943	481	1 082.956 3737	531	1 218.176 5262	581	1 355.442 4792
432	952.630 6780	482	1 085.639 4207	532	1 220.902 4378	582	1 358.207 4022
433	955.267 1659	483	1 088.323 3678	533	1 223.629 1650	583	1 360.973 0708
434	957.904 6557	484	1 091.008 2132	534	1 226.356 7063	584	1 363.739 4836
435	960.543 1449	485	1 093.693 9549	535	1 229.085 0600	585	1 366.506 6395
436	963.182 6314	486	1 096.380 5912	536	1 231.814 2248	586	1 369.274 5371
437	965.823 1128	487	1 099.068 1202	537	1 234.544 1991	587	1 372.043 1752
438	968.464 5869	488	1 101.756 5400	538	1 237.274 9814	588	1 374.812 5525
439	971.107 0515	489	1 104.445 8488	539	1 240.006 5702	589	1 377.582 6678
440	973.750 5041	490	1 107.136 0449	540	1 242.738 9639	590	1 380.353 5198
441	976.394 9427	491	1 109.827 1264	541	1 245.472 1612	591	1 383.125 1073
442	979.040 3650	492	1 112.519 0915	542	1 248.206 1605	592	1 385.897 4290
443	981.686 7687	493	1 115.211 9384	543	1 250.940 9603	593	1 388.670 4837
444	984.334 1517	494	1 117.905 6654	544	1 253.676 5592	594	1 391.444 2702
445	986.982 5117	495	1 120.600 2706	545	1 256.412 9557	595	1 394.218 7871
446	989.631 8466	496	1 123.295 7523	546	1 259.150 1483	596	1 396.994 0334
447	992.282 1541	497	1 125.992 1086	547	1 261.888 1357	597	1 399.770 0077
448	994.933 4321	498	1 128.689 3380	548	1 264.626 9162	598	1 402.546 7089
449	997.585 6784	499	1 131.387 4385	549	1 267.366 4886	599	1 405.324 1357
450	1 000.238 8910	500	1 134.086 4085	550	1 270.106 8513	600	1 408.102 2870

Logarithm of Factorial n from $n=1$ to $n=1000$ by Unit Intervals

n	$\log \underline{n}$	n	$\log \underline{n}$	n	$\log \underline{n}$	n	$\log \underline{n}$
601	1 410.881 1614	651	1 550.721 4519	701	1 692.229 8994	751	1 835.287 3949
602	1 413.660 7579	652	1 553.535 6995	702	1 695.076 2365	752	1 838.163 6127
603	1 416.441 0752	653	1 556.350 6126	703	1 697.923 1918	753	1 841.040 4077
604	1 419.222 1122	654	1 559.166 1904	704	1 700.770 7644	754	1 843.917 7790
605	1 422.003 8676	655	1 561.982 4317	705	1 703.618 9536	755	1 846.795 7260
606	1 424.786 3402	656	1 564.799 3355	706	1 706.467 7583	756	1 849.674 2478
607	1 427.569 5289	657	1 567.616 9009	707	1 709.317 1777	757	1 852.553 3437
608	1 430.353 4324	658	1 570.435 1268	708	1 712.167 2109	758	1 855.433 0129
609	1 433.138 0497	659	1 573.254 0122	709	1 715.017 8572	759	1 858.313 2546
610	1 435.923 3796	660	1 576.073 5561	710	1 717.869 1155	760	1 861.194 0682
611	1 438.709 4208	661	1 578.893 7576	711	1 720.720 9851	761	1 864.075 4529
612	1 441.496 1722	662	1 581.714 6156	712	1 723.573 4651	762	1 866.957 4079
613	1 444.283 6327	663	1 584.536 1291	713	1 726.426 5546	763	1 869.839 9324
614	1 447.071 8011	664	1 587.358 2972	714	1 729.280 2529	764	1 872.723 0258
615	1 449.860 6762	665	1 590.181 1188	715	1 732.134 5589	765	1 875.606 6872
616	1 452.650 2569	666	1 593.004 5931	716	1 734.989 4719	766	1 878.490 9160
617	1 455.440 5420	667	1 595.828 7189	717	1 737.844 9911	767	1 881.375 7113
618	1 458.231 5305	668	1 598.653 4954	718	1 740.701 1155	768	1 884.261 0726
619	1 461.023 2212	669	1 601.478 9215	719	1 743.557 8444	769	1 887.146 9989
620	1 463.815 6129	670	1 604.304 9963	720	1 746.415 1769	770	1 890.033 4896
621	1 466.608 7045	671	1 607.131 7188	721	1 749.273 1122	771	1 892.920 5440
622	1 469.402 4948	672	1 609.959 0881	722	1 752.131 6494	772	1 895.808 1613
623	1 472.196 9829	673	1 612.787 1031	723	1 754.990 7877	773	1 898.696 3408
624	1 474.992 1675	674	1 615.615 7630	724	1 757.850 5262	774	1 901.585 0817
625	1 477.788 0475	675	1 618.445 0668	725	1 760.710 8642	775	1 904.474 3835
626	1 480.584 6218	676	1 621.275 0135	726	1 763.571 8009	776	1 907.364 2452
627	1 483.381 8894	677	1 624.105 6022	727	1 766.433 3353	777	1 910.254 6662
628	1 486.179 8490	678	1 626.936 8319	728	1 769.295 4667	778	1 913.145 6458
629	1 488.978 4997	679	1 629.768 7016	729	1 772.158 1942	779	1 916.037 1832
630	1 491.777 8402	680	1 632.601 2106	730	1 775.021 5170	780	1 918.929 2778
631	1 494.577 8696	681	1 635.434 3577	731	1 777.885 4344	781	1 921.821 9289
632	1 497.378 5866	682	1 638.268 1420	732	1 780.749 9455	782	1 924.715 1356
633	1 500.179 9904	683	1 641.102 5627	733	1 783.615 0495	783	1 927.608 8974
634	1 502.982 0796	684	1 643.937 6189	734	1 786.480 7455	784	1 930.503 2135
635	1 505.784 8533	685	1 646.773 3094	735	1 789.347 0329	785	1 933.398 0831
636	1 508.588 3105	686	1 649.609 6335	736	1 792.213 9107	786	1 936.293 5057
637	1 511.392 4499	687	1 652.446 5903	737	1 795.081 3782	787	1 939.189 4804
638	1 514.197 2706	688	1 655.284 1787	738	1 797.949 4345	788	1 942.086 0066
639	1 517.002 7714	689	1 658.122 3979	739	1 800.818 0790	789	1 944.983 0836
640	1 519.808 9514	690	1 660.961 2470	740	1 803.687 3107	790	1 947.880 7107
641	1 522.615 8094	691	1 663.800 7251	741	1 806.557 1289	791	1 950.778 8872
642	1 525.423 3445	692	1 666.640 8312	742	1 809.427 5328	792	1 953.677 6124
643	1 528.231 5554	693	1 669.481 5644	743	1 812.298 5216	793	1 956.576 8856
644	1 531.040 4413	694	1 672.322 9239	744	1 815.170 0946	794	1 959.476 7061
645	1 533.850 0010	695	1 675.164 9087	745	1 818.042 2508	795	1 962.377 0732
646	1 536.660 2335	696	1 678.007 5179	746	1 820.914 9897	796	1 965.277 9863
647	1 539.471 1378	697	1 680.850 7507	747	1 823.788 3103	797	1 968.179 4446
648	1 542.282 7128	698	1 683.694 6061	748	1 826.662 2119	798	1 971.081 4475
649	1 545.094 9575	699	1 686.539 0833	749	1 829.536 6937	799	1 973.983 9943
650	1 547.907 8709	700	1 689.384 1813	750	1 832.411 7549	800	1 976.887 0842

Logarithm of Factorial n from $n=1$ to $n=1000$ by Unit Intervals

n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$	n	$\log \lfloor n$
801	1 979.790 7168	851	2 125.649 5488	901	2 272.784 2010	951	2 421.123 8376
802	1 982.694 8911	852	2 128.579 9884	902	2 275.739 4075	952	2 424.102 4745
803	1 985.599 6067	853	2 131.510 9374	903	2 278.695 0953	953	2 427.081 5674
804	1 988.504 8627	854	2 134.442 3953	904	2 281.651 2637	954	2 430.061 1158
805	1 991.410 6586	855	2 137.374 3614	905	2 284.607 9123	955	2 433.041 1192
806	1 994.316 9936	856	2 140.306 8352	906	2 287.565 0405	956	2 436.021 5771
807	1 997.223 8672	857	2 143.239 8160	907	2 290.522 6478	957	2 439.002 4890
808	2 000.131 2785	858	2 146.173 3033	908	2 293.480 7336	958	2 441.983 8545
809	2 003.039 2271	859	2 149.107 2964	909	2 296.439 2975	959	2 444.965 6731
810	2 005.947 7121	860	2 152.041 7949	910	2 299.398 3389	960	2 447.947 9443
811	2 008.856 7329	861	2 154.976 7980	911	2 302.357 8573	961	2 450.930 6677
812	2 011.766 2890	862	2 157.912 3053	912	2 305.317 8521	962	2 453.913 8428
813	2 014.676 3795	863	2 160.848 3161	913	2 308.278 3229	963	2 456.897 4691
814	2 017.587 0039	864	2 163.784 8298	914	2 311.239 2691	964	2 459.881 5461
815	2 020.498 1615	865	2 166.721 8459	915	2 314.200 6902	965	2 462.866 0734
816	2 023.409 8517	866	2 169.659 3638	916	2 317.162 5856	966	2 465.851 0506
817	2 026.322 0737	867	2 172.597 3829	917	2 320.124 9550	967	2 468.836 4770
818	2 029.234 8270	868	2 175.535 9027	918	2 323.087 7977	968	2 471.822 3524
819	2 032.148 1109	869	2 178.474 9224	919	2 326.051 1132	969	2 474.808 6762
820	2 035.061 9248	870	2 181.414 4417	920	2 329.014 9010	970	2 477.795 4479
821	2 037.976 2679	871	2 184.354 4598	921	2 331.979 1606	971	2 480.782 6671
822	2 040.891 1398	872	2 187.294 9763	922	2 334.943 8915	972	2 483.770 3334
823	2 043.806 5396	873	2 190.235 9906	923	2 337.909 0932	973	2 486.758 4462
824	2 046.722 4668	874	2 193.177 5020	924	2 340.874 7652	974	2 489.747 0052
825	2 049.638 9208	875	2 196.119 5101	925	2 343.840 9069	975	2 492.736 0098
826	2 052.555 9008	876	2 199.062 0142	926	2 346.807 5179	976	2 495.725 4596
827	2 055.473 4063	877	2 202.005 0138	927	2 349.774 5977	977	2 498.715 3542
828	2 058.391 4367	878	2 204.948 5083	928	2 352.742 1456	978	2 501.705 6930
829	2 061.309 9912	879	2 207.892 4971	929	2 355.710 1614	979	2 504.696 4757
830	2 064.229 0693	880	2 210.836 9798	930	2 358.678 6443	980	2 507.687 7018
831	2 067.148 6703	881	2 213.781 9557	931	2 361.647 5940	981	2 510.679 3708
832	2 070.068 7936	882	2 216.727 4243	932	2 364.617 0099	982	2 513.671 4823
833	2 072.989 4386	883	2 219.673 3850	933	2 367.586 8915	983	2 516.664 0358
834	2 075.910 6047	884	2 222.619 8373	934	2 370.557 2384	984	2 519.657 0309
835	2 078.832 2912	885	2 225.566 7805	935	2 373.528 0500	985	2 522.650 4672
836	2 081.754 4974	886	2 228.514 2143	936	2 376.499 3259	986	2 525.644 3441
837	2 084.677 2229	887	2 231.462 1379	937	2 379.471 0655	987	2 528.638 6612
838	2 087.600 4669	888	2 234.410 5509	938	2 382.443 2683	988	2 531.633 4182
839	2 090.524 2289	889	2 237.359 4526	939	2 385.415 9339	989	2 534.628 6145
840	2 093.448 5082	890	2 240.308 8426	940	2 388.389 0618	990	2 537.624 2497
841	2 096.373 3042	891	2 243.258 7203	941	2 391.362 6514	991	2 540.620 3233
842	2 099.298 6162	892	2 246.209 0852	942	2 394.336 7023	992	2 543.616 8350
843	2 102.224 4438	893	2 249.159 9366	943	2 397.311 2140	993	2 546.613 7842
844	2 105.150 7863	894	2 252.111 2742	944	2 400.286 1860	994	2 549.611 1706
845	2 108.077 6430	895	2 255.063 0972	945	2 403.261 6178	995	2 552.608 9937
846	2 111.005 0133	896	2 258.015 4052	946	2 406.237 5089	996	2 555.607 2530
847	2 113.932 8967	897	2 260.968 1976	947	2 409.213 8589	997	2 558.605 9482
848	2 116.861 2926	898	2 263.921 4740	948	2 412.190 6672	998	2 561.605 0787
849	2 119.790 2003	899	2 266.875 2337	949	2 415.167 9334	999	2 564.604 6442
850	2 122.719 6192	900	2 269.829 4762	950	2 418.145 6570	1000	2 567.604 6442

Leading Differences of 0^n

n	Δ	Δ^2	Δ^3	Δ^4	Δ^5	Δ^6	Δ^7	Δ^8
1	1	0	0	0	0	0	0	0
2	1	2	0	0	0	0	0	0
3	1	6	6	0	0	0	0	0
4	1	14	36	24	0	0	0	0
5	1	30	150	240	120	0	0	0
6	1	62	540	1560	1800	720	0	0
7	1	126	1806	8400	16800	15120	5040	0
8	1	254	5796	40824	126000	191520	141120	40320

Coefficients of x^{n+r} in Expansion of $(e^x-1)^n$

n	$r=0$	$r=1$	$r=2$	$r=3$	$r=4$	$r=5$
1	1	1÷2	1÷6	1÷24	1÷120	1÷720
2	1	1	7÷12	1÷4	31÷360	1÷40
3	1	3÷2	5÷4	3÷4	43÷120	23÷160
4	1	2	13÷6	5÷3	81÷80	37÷72
5	1	5÷2	10÷3	25÷8	331÷144	45÷32
6	1	3	19÷4	21÷4	1087÷240	259÷80
7	1	7÷2	77÷12	49÷6	1939÷240	4753÷720
8	1	4	25÷3	12	4819÷360	123÷10
9	1	9÷2	21÷2	135÷8	419÷20	171÷8
10	1	5	155÷12	275÷12	94÷3	1265÷36

Coefficients of x^r in Expansion of $e^{e^x}\div e$

$r=0$	$r=1$	$r=2$	$r=3$	$r=4$	$r=5$	$r=6$
1	1	1	5÷6	5÷8	13÷30	203÷720

Coefficients of x^r in Expansion of $e^x/(1-x)^n$

n	$r=0$	$r=1$	$r=2$	$r=3$	$r=4$	$r=5$
1	1	2	5÷2	8÷3	65÷24	163÷60
2	1	3	11÷2	49÷6	87÷8	1631÷120
3	1	4	19÷2	53÷3	685÷24	632÷15
4	1	5	29÷2	193÷6	1457÷24	12341÷120
5	1	6	41÷2	158÷3	907÷8	12973÷60
6	1	7	55÷2	481÷6	4645÷24	49171÷120

This table may be extended as follows: Each coefficient is obtained by adding the coefficient above to the coefficient to the left of it.

Factors for Computing Probable Errors

n	$\frac{.67449}{\sqrt{n(n-1)}}$	$\frac{.67449}{\sqrt{n-1}}$	$\frac{.84535}{\sqrt{n(n-1)}}$	$\frac{.84535}{n\sqrt{n-1}}$	$\frac{1}{\sqrt{n}}$	$\frac{1}{\sqrt{n(n-1)}}$	n
2	.47694	.67449	.59775	.42267	.7071 0678	.7071 0678	2
3	.27536	.47694	.34511	.19925	.5773 5027	.4082 4829	3
4	.19471	.38942	.24403	.12202	.5000 0000	.2886 7513	4
5	.15082	.33724	.18903	.08453	.4472 1360	.2236 0680	5
6	.12314	.30164	.15434	.06301	.4082 4829	.1825 7419	6
7	.10408	.27536	.13044	.04930	.3779 6447	.1543 0335	7
8	.09013	.25493	.11296	.03994	.3535 5339	.1336 3062	8
9	.07949	.23847	.09963	.03321	.3333 3333	.1178 5113	9
10	.07110	.22483	.08911	.02818	.3162 2777	.1054 0925	10
11	.06431	.21329	.08060	.02430	.3015 1134	.0953 4626	11
12	.05871	.20337	.07358	.02124	.2886 7513	.0870 3875	12
13	.05400	.19471	.06768	.01877	.2773 5010	.0800 6407	13
14	.05000	.18707	.06266	.01675	.2672 6124	.0741 2493	14
15	.04654	.18026	.05833	.01506	.2581 9889	.0690 0656	15
16	.04354	.17415	.05457	.01364	.2500 0000	.0645 4972	16
17	.04090	.16862	.05126	.01243	.2425 3562	.0606 3391	17
18	.03856	.16359	.04833	.01139	.2357 0226	.0571 6620	18
19	.03647	.15898	.04571	.01049	.2294 1573	.0540 7381	19
20	.03460	.15474	.04337	.00970	.2236 0680	.0512 9892	20
21	.03291	.15082	.04125	.00900	.2182 1789	.0487 9500	21
22	.03138	.14719	.03933	.00838	.2132 0072	.0465 2421	22
23	.02998	.14380	.03758	.00784	.2085 1441	.0444 5543	23
24	.02871	.14064	.03598	.00734	.2041 2415	.0425 6282	24
25	.02754	.13768	.03451	.00690	.2000 0000	.0408 2483	25
26	.02646	.13490	.03316	.00650	.1961 1613	.0392 2323	26
27	.02546	.13228	.03191	.00614	.1924 5009	.0377 4256	27
28	.02453	.12981	.03074	.00581	.1889 8224	.0363 6964	28
29	.02367	.12747	.02967	.00551	.1856 9534	.0350 9312	29
30	.02287	.12525	.02866	.00523	.1825 7419	.0339 0317	30
31	.02212	.12314	.02772	.00498	.1796 0530	.0327 9129	31
32	.02142	.12114	.02684	.00474	.1767 7670	.0317 5004	32
33	.02076	.11923	.02601	.00453	.1740 7766	.0307 7287	33
34	.02014	.11741	.02524	.00433	.1714 9859	.0298 5407	34
35	.01955	.11567	.02451	.00414	.1690 3085	.0289 8855	35
36	.01900	.11401	.02381	.00397	.1666 6667	.0281 7181	36
37	.01848	.11241	.02316	.00381	.1643 9899	.0273 9983	37
38	.01799	.11089	.02254	.00366	.1622 2142	.0266 6904	38
39	.01752	.10942	.02196	.00352	.1601 2815	.0259 7622	39
40	.01708	.10800	.02140	.00338	.1581 1388	.0253 1848	40
41	.01666	.10665	.02087	.00326	.1561 7376	.0246 9324	41
42	.01625	.10534	.02037	.00314	.1543 0335	.0240 9813	42
43	.01587	.10408	.01989	.00303	.1524 9857	.0235 3104	43
44	.01551	.10286	.01943	.00293	.1507 5567	.0229 9002	44
45	.01516	.10168	.01900	.00283	.1490 7120	.0224 7333	45
46	.01482	.10055	.01858	.00274	.1474 4196	.0219 7935	46
47	.01451	.09945	.01818	.00265	.1458 6499	.0215 0662	47
48	.01420	.09838	.01780	.00257	.1443 3757	.0210 5380	48
49	.01391	.09735	.01743	.00249	.1428 5714	.0206 1965	49
50	.01363	.09636	.01708	.00242	.1414 2136	.0202 0305	50

Factors for Computing Probable Errors

n	$\frac{.67449}{\sqrt{n(n-1)}}$	$\frac{.67449}{\sqrt{n-1}}$	$\frac{.84535}{\sqrt{n(n-1)}}$	$\frac{.84535}{n\sqrt{n-1}}$	$\frac{1}{\sqrt{n}}$	$\frac{1}{\sqrt{n(n-1)}}$	n
51	.01336	.09539	.01674	.00234	.1400 2801	.0198 0295	51
52	.01310	.09445	.01642	.00228	.1386 7505	.0194 1839	52
53	.01285	.09353	.01610	.00221	.1373 6057	.0190 4848	53
54	.01261	.09265	.01580	.00215	.1360 8277	.0186 9240	54
55	.01238	.09179	.01551	.00209	.1348 3997	.0183 4940	55
56	.01215	.09095	.01523	.00204	.1336 3062	.0180 1875	56
57	.01194	.09013	.01496	.00198	.1324 5324	.0176 9981	57
58	.01173	.08934	.01470	.00193	.1313 0643	.0173 9196	58
59	.01153	.08856	.01445	.00188	.1301 8891	.0170 9464	59
60	.01134	.08781	.01421	.00183	.1290 9945	.0168 0732	60
61	.01115	.08708	.01397	.00179	.1280 3688	.0165 2949	61
62	.01097	.08636	.01375	.00175	.1270 0013	.0162 6070	62
63	.01079	.08566	.01353	.00170	.1259 8816	.0160 0051	63
64	.01062	.08498	.01331	.00166	.1250 0000	.0157 4852	64
65	.01046	.08431	.01311	.00163	.1240 3473	.0155 0434	65
66	.01030	.08366	.01291	.00159	.1230 9149	.0152 6762	66
67	.01014	.08302	.01271	.00155	.1221 6944	.0150 3802	67
68	.00999	.08240	.01252	.00152	.1212 6781	.0148 1522	68
69	.00985	.08179	.01234	.00149	.1203 8585	.0145 9893	69
70	.00971	.08120	.01216	.00145	.1195 2286	.0143 8886	70
71	.00957	.08062	.01199	.00142	.1186 7817	.0141 8475	71
72	.00943	.08005	.01182	.00139	.1178 5113	.0139 8636	72
73	.00930	.07949	.01166	.00136	.1170 4115	.0137 9343	73
74	.00918	.07894	.01150	.00134	.1162 4764	.0136 0576	74
75	.00905	.07841	.01135	.00131	.1154 7005	.0134 2312	75
76	.00893	.07788	.01120	.00128	.1147 0787	.0132 4532	76
77	.00882	.07731	.01105	.00126	.1139 6058	.0130 7217	77
78	.00870	.07687	.01091	.00124	.1132 2770	.0129 0350	78
79	.00859	.07637	.01077	.00121	.1125 0879	.0127 3911	79
80	.00848	.07589	.01063	.00119	.1118 0340	.0125 7886	80
81	.00838	.07541	.01050	.00117	.1111 1111	.0124 2260	81
82	.00828	.07494	.01037	.00115	.1104 3153	.0122 7017	82
83	.00818	.07448	.01025	.00112	.1097 6426	.0121 2144	83
84	.00808	.07403	.01012	.00110	.1091 0895	.0119 7626	84
85	.00798	.07359	.01000	.00109	.1084 6523	.0118 3453	85
86	.00789	.07316	.00989	.00107	.1078 3277	.0116 9611	86
87	.00780	.07273	.00977	.00105	.1072 1125	.0115 6089	87
88	.00771	.07231	.00966	.00103	.1066 0036	.0114 2876	88
89	.00762	.07190	.00955	.00101	.1059 9979	.0112 9962	89
90	.00754	.07150	.00945	.00100	.1054 0925	.0111 7336	90
91	.00745	.07110	.00934	.00098	.1048 2848	.0110 4989	91
92	.00737	.07071	.00924	.00096	.1042 5721	.0109 2913	92
93	.00729	.07032	.00914	.00095	.1036 9517	.0108 1097	93
94	.00721	.06994	.00904	.00093	.1031 4213	.0106 9534	94
95	.00714	.06957	.00895	.00092	.1025 9784	.0105 8216	95
96	.00706	.06920	.00885	.00090	.1020 6207	.0104 7135	96
97	.00699	.06884	.00876	.00089	.1015 3461	.0103 6283	97
98	.00692	.06848	.00867	.00088	.1010 1526	.0102 5654	98
99	.00685	.06813	.00858	.00086	.1005 0378	.0101 5241	99
100	.00678	.06779	.00850	.00085	.1000 0000	.0100 5038	100

Values of Factorial n and Sub-factorial n from $n=1$ to $n=12$

n	$\lfloor n$	$\lVert n$	n	$\lfloor n$	$\lVert n$
1	$1=1$	$0=0$	7	$5040=2^4\cdot3^2\cdot5\cdot7$	$1854=2\cdot3^2\cdot103$
2	$2=2$	$1=1$	8	$40320=2^7\cdot3^2\cdot5\cdot7$	$14833=7\cdot13\cdot163$
3	$6=2\cdot3$	$2=2$	9	$362880=2^7\cdot3^4\cdot5\cdot7$	$133496=2^3\cdot11\cdot37\cdot41$
4	$24=2^3\cdot3$	$9=3^2$	10	$3628800=2^8\cdot3^4\cdot5^2\cdot7$	$1334961=3^4\cdot16481$
5	$120=2^3\cdot3\cdot5$	$44=2^2\cdot11$	11	$39916800=2^8\cdot3^4\cdot5^2\cdot7\cdot11$	$14684570=2\cdot5\cdot1468457$
6	$720=2^4\cdot3^2\cdot5$	$265=5\cdot53$	12	$479001600=2^{10}\cdot3^5\cdot5^2\cdot7\cdot11$	$176214841=11^2\cdot1456321$

Table of Constants

Symbol	Value
π	3.14159 26535 89793 23846 26433 83280
$log_{10}\pi$	0.49714 98726 94133 85435 12682 88291
$log_e\pi$	1.14472 98858 49400 17414 34273 51353
e	2.71828 18284 59045 23536 02874 71353
$log_{10}e=M$	0.43429 44819 03251 82765 11289 18917
$log_e10=1/M$	2.30258 50929 94045 68401 79914 54684
$log_{10}log_{10}e=log_{10}M$	9.63778 43113 00536 78912

Symbol	Value	Common Logarithm
$\sqrt{\pi}$	1.77245 38509	0.24857 49363
π^2	9.86960 44011	0.99429 97454
π^3	31.00627 66803	1.49144 96181
π^4	97.40909 10340	1.98859 94908
$1/\sqrt{\pi}$	0.56418 95835	9.75142 50637
$1/\pi$	0.31830 98862	9.50285 01273
$1/\pi^2$	0.10132 11836	9.00570 02546
$1/\pi^3$	0.03225 15344	8.50855 03819
$1/\pi^4$	0.01026 59823	8.01140 05092
$\sqrt{2\pi}$	2.50662 82746	0.39908 99342
$1/\sqrt{2\pi}$	0.39894 22803	9.60091 00658
$\sqrt{2/\pi}$	0.79788 45608	9.90194 00615
$\sqrt[3]{\pi/6}$	0.80599 59770	9.90633 28741
$\sqrt{e}$	1.64872 12707	0.21714 72410
$1/\sqrt{}$	0.60653 06597	9.78285 27590
$\sqrt{2}$	1.41421 35624	0.15051 49978
$\sqrt{3}$	1.73205 08076	0.23856 06274
$\sqrt{5}$	2.23606 79775	0.34948 50022
$\sqrt{7}$	2.64575 13111	0.42254 90200
$\sqrt{10}$	3.16227 76602	0.50000 00000
ρ_0	0.47693 62762	9.67846 03565
$r=\rho_0\sqrt{2}$	0.67448 97500	9.82897 53543
$\rho_0\sqrt{\pi}$	0.84534 75394	9.92703 52928
$\gamma=$Euler's constant	0.57721 56649	9.76133 81088

PART IV

Common Logarithms of Numbers

from

1 to 100,000

to

Seven Places of Decimals

N.	Log.	N.	Log.	N.	Log.	N.	Log.	N.	Log.
0	— ∞	50	698 9700	100	000 0000	150	176 0913	200	301 0300
1	000 0000	51	707 5702	101	004 3214	151	178 9769	201	303 1961
2	301 0300	52	716 0033	102	008 6002	152	181 8436	202	305 3514
3	477 1213	53	724 2759	103	012 8372	153	184 6914	203	307 4960
4	602 0600	54	732 3938	104	017 0333	154	187 5207	204	309 6302
5	698 9700	55	740 3627	105	021 1893	155	190 3317	205	311 7539
6	778 1513	56	748 1880	106	025 3059	156	193 1246	206	313 8672
7	845 0980	57	755 8749	107	029 3838	157	195 8997	207	315 9703
8	903 0900	58	763 4280	108	033 4238	158	198 6571	208	318 0633
9	954 2425	59	770 8520	109	037 4265	159	201 3971	209	320 1463
10	000 0000	60	778 1513	110	041 3927	160	204 1200	210	322 2193
11	041 3927	61	785 3298	111	045 3230	161	206 8259	211	324 2825
12	079 1812	62	792 3917	112	049 2180	162	209 5150	212	326 3359
13	113 9434	63	799 3405	113	053 0784	163	212 1876	213	328 3796
14	146 1280	64	806 1800	114	056 9049	164	214 8438	214	330 4138
15	176 0913	65	812 9134	115	060 6978	165	217 4839	215	332 4385
16	204 1200	66	819 5439	116	064 4580	166	220 1081	216	334 4538
17	230 4489	67	826 0748	117	068 1859	167	222 7165	217	336 4597
18	255 2725	68	832 5089	118	071 8820	168	225 3093	218	338 4565
19	278 7536	69	838 8491	119	075 5470	169	227 8867	219	340 4441
20	301 0300	70	845 0980	120	079 1812	170	230 4489	220	342 4227
21	322 2193	71	851 2583	121	082 7854	171	232 9961	221	344 3923
22	342 4227	72	857 3325	122	086 3598	172	235 5284	222	346 3530
23	361 7278	73	863 3229	123	089 9051	173	238 0461	223	348 3049
24	380 2112	74	869 2317	124	093 4217	174	240 5492	224	350 2480
25	397 9400	75	875 0613	125	096 9100	175	243 0380	225	352 1825
26	414 9733	76	880 8136	126	100 3705	176	245 5127	226	354 1084
27	431 3638	77	886 4907	127	103 8037	177	247 9733	227	356 0259
28	447 1580	78	892 0946	128	107 2100	178	250 4200	228	357 9348
29	462 3980	79	897 6271	129	110 5897	179	252 8530	229	359 8355
30	477 1213	80	903 0900	130	113 9434	180	255 2725	230	361 7278
31	491 3617	81	908 4850	131	117 2713	181	257 6786	231	363 6120
32	505 1500	82	913 8139	132	120 5739	182	260 0714	232	365 4880
33	518 5139	83	919 0781	133	123 8516	183	262 4511	233	367 3559
34	531 4789	84	924 2793	134	127 1048	184	264 8178	234	369 2159
35	544 0680	85	929 4189	135	130 3338	185	267 1717	235	371 0679
36	556 3025	86	934 4985	136	133 5389	186	269 5129	236	372 9120
37	568 2017	87	939 5193	137	136 7206	187	271 8416	237	374 7483
38	579 7836	88	944 4827	138	139 8791	188	274 1578	238	376 5770
39	591 0646	89	949 3900	139	143 0148	189	276 4618	239	378 3979
40	602 0600	90	954 2425	140	146 1280	190	278 7536	240	380 2112
41	612 7839	91	959 0414	141	149 2191	191	281 0334	241	382 0170
42	623 2493	92	963 7878	142	152 2883	192	283 3012	242	383 8154
43	633 4685	93	968 4829	143	155 3360	193	285 5573	243	385 6063
44	643 4527	94	973 1279	144	158 3625	194	287 8017	244	387 3898
45	653 2125	95	977 7236	145	161 3680	195	290 0346	245	389 1661
46	662 7578	96	982 2712	146	164 3529	196	292 2561	246	390 9351
47	672 0979	97	986 7717	147	167 3173	197	294 4662	247	392 6970
48	681 2412	98	991 2261	148	170 2617	198	296 6652	248	394 4517
49	690 1961	99	995 6352	149	173 1863	199	298 8531	249	396 1993
50	698 9700	100	000 0000	150	176 0913	200	301 0300	250	397 9400
N	Log.	N.	Log.	N	Log.	N.	Log.	N.	Log.

N.	Log.	N.	Log.	N.	Log	N.	Log	N.	Log.
250	397 9400	300	477 1213	350	544 0680	400	602 0600	450	653 2125
251	399 6737	301	478 5665	351	545 3071	401	603 1444	451	654 1765
252	401 4005	302	480 0069	352	546 5427	402	604 2261	452	655 1384
253	403 1205	303	481 4426	353	547 7747	403	605 3050	453	656 0982
254	404 8337	304	482 8736	354	549 0033	404	606 3814	454	657 0559
255	406 5402	305	484 2998	355	550 2284	405	607 4550	455	658 0114
256	408 2400	306	485 7214	356	551 4500	406	608 5260	456	658 9648
257	409 9331	307	487 1384	357	552 6682	407	609 5944	457	659 9162
258	411 6197	308	488 5507	358	553 8830	408	610 6602	458	660 8655
259	413 2998	309	489 9585	359	555 0944	409	611 7233	459	661 8127
260	414 9733	310	491 3617	360	556 3025	410	612 7839	460	662 7578
261	416 6405	311	492 7604	361	557 5072	411	613 8418	461	663 7009
262	418 3013	312	494 1546	362	558 7086	412	614 8972	462	664 6420
263	419 9557	313	495 5443	363	559 9066	413	615 9501	463	665 5810
264	421 6039	314	496 9296	364	561 1014	414	617 0003	464	666 5180
265	423 2459	315	498 3106	365	562 2929	415	618 0481	465	667 4530
266	424 8816	316	499 6871	366	563 4811	416	619 0933	466	668 3859
267	426 5113	317	501 0593	367	564 6661	417	620 1361	467	669 3169
268	428 1348	318	502 4271	368	565 8478	418	621 1763	468	670 2459
269	429 7523	319	503 7907	369	567 0264	419	622 2140	469	671 1728
270	431 3638	320	505 1500	370	568 2017	420	623 2493	470	672 0979
271	432 9693	321	506 5050	371	569 3739	421	624 2821	471	673 0209
272	434 5689	322	507 8559	372	570 5429	422	625 3125	472	673 9420
273	436 1626	323	509 2025	373	571 7088	423	626 3404	473	674 8611
274	437 7506	324	510 5450	374	572 8716	424	627 3659	474	675 7783
275	439 3327	325	511 8834	375	574 0313	425	628 3889	475	676 6936
276	440 9091	326	513 2176	376	575 1878	426	629 4096	476	677 6070
277	442 4798	327	514 5478	377	576 3414	427	630 4279	477	678 5184
278	444 0448	328	515 8738	378	577 4918	428	631 4438	478	679 4279
279	445 6042	329	517 1959	379	578 6392	429	632 4573	479	680 3355
280	447 1580	330	518 5139	380	579 7836	430	633 4685	480	681 2412
281	448 7063	331	519 8280	381	580 9250	431	634 4773	481	682 1451
282	450 2491	332	521 1381	382	582 0634	432	635 4837	482	683 0470
283	451 7864	333	522 4442	383	583 1988	433	636 4879	483	683 9471
284	453 3183	334	523 7465	384	584 3312	434	637 4897	484	684 8454
285	454 8449	335	525 0448	385	585 4607	435	638 4893	485	685 7417
286	456 3660	336	526 3393	386	586 5873	436	639 4865	486	686 6363
287	457 8819	337	527 6299	387	587 7110	437	640 4814	487	687 5290
288	459 3925	338	528 9167	388	588 8317	438	641 4741	488	688 4198
289	460 8978	339	530 1997	389	589 9496	439	642 4645	489	689 3089
290	462 3980	340	531 4789	390	591 0646	440	643 4527	490	690 1961
291	463 8930	341	532 7544	391	592 1768	441	644 4386	491	691 0815
292	465 3829	342	534 0261	392	593 2861	442	645 4223	492	691 9651
293	466 8676	343	535 2941	393	594 3926	443	646 4037	493	692 8469
294	468 3473	344	536 5584	394	595 4962	444	647 3830	494	693 7269
295	469 8220	345	537 8191	395	596 5971	445	648 3600	495	694 6052
296	471 2917	346	539 0761	396	597 6952	446	649 3349	496	695 4817
297	472 7564	347	540 3295	397	598 7905	447	650 3075	497	696 3564
298	474 2163	348	541 5792	398	599 8831	448	651 2780	498	697 2293
299	475 6712	349	542 8254	399	600 9729	449	652 2463	499	698 1005
300	477 1213	350	544 0680	400	602 0600	450	653 2125	500	698 9700
N.	Log.	N.	Log.	N.	Log	N.	Log.	N.	Log.

N.	Log.	N.	Log.	N.	Log.	N.	Log.	N.	Log.
500	698 9700	550	740 3627	600	778 1513	650	812 9134	700	845 0980
501	699 8377	551	741 1516	601	778 8745	651	813 5810	701	845 7180
502	700 7037	552	741 9391	602	779 5965	652	814 2476	702	846 3371
503	701 5680	553	742 7251	603	780 3173	653	814 9132	703	846 9553
504	702 4305	554	743 5098	604	781 0369	654	815 5777	704	847 5727
505	703 2914	555	744 2930	605	781 7554	655	816 2413	705	848 1891
506	704 1505	556	745 0748	606	782 4726	656	816 9038	706	848 8047
507	705 0080	557	745 8552	607	783 1887	657	817 5654	707	849 4194
508	705 8637	558	746 6342	608	783 9036	658	818 2259	708	850 0333
509	706 7178	559	747 4118	609	784 6173	659	818 8854	709	850 6462
510	707 5702	560	748 1880	610	785 3298	660	819 5439	710	851 2583
511	708 4209	561	748 9629	611	786 0412	661	820 2015	711	851 8696
512	709 2700	562	749 7363	612	786 7514	662	820 8580	712	852 4800
513	710 1174	563	750 5084	613	787 4605	663	821 5135	713	853 0895
514	710 9631	564	751 2791	614	788 1684	664	822 1681	714	853 6982
515	711 8072	565	752 0484	615	788 8751	665	822 8216	715	854 3060
516	712 6497	566	752 8164	616	789 5807	666	823 4742	716	854 9130
517	713 4905	567	753 5831	617	790 2852	667	824 1258	717	855 5192
518	714 3298	568	754 3483	618	790 9885	668	824 7765	718	856 1244
519	715 1674	569	755 1123	619	791 6906	669	825 4261	719	856 7289
520	716 0033	570	755 8749	620	792 3917	670	826 0748	720	857 3325
521	716 8377	571	756 6361	621	793 0916	671	826 7225	721	857 9353
522	717 6705	572	757 3960	622	793 7904	672	827 3693	722	858 5372
523	718 5017	573	758 1546	623	794 4880	673	828 0151	723	859 1383
524	719 3313	574	758 9119	624	795 1846	674	828 6599	724	859 7386
525	720 1593	575	759 6678	625	795 8800	675	829 3038	725	860 3380
526	720 9857	576	760 4225	626	796 5743	676	829 9467	726	860 9366
527	721 8106	577	761 1758	627	797 2675	677	830 5887	727	861 5344
528	722 6339	578	761 9278	628	797 9596	678	831 2297	728	862 1314
529	723 4557	579	762 6786	629	798 6506	679	831 8698	729	862 7275
530	724 2759	580	763 4280	630	799 3405	680	832 5089	730	863 3229
531	725 0945	581	764 1761	631	800 0294	681	833 1471	731	863 9174
532	725 9116	582	764 9230	632	800 7171	682	833 7844	732	864 5111
533	726 7272	583	765 6686	633	801 4037	683	834 4207	733	865 1040
534	727 5413	584	766 4128	634	802 0893	684	835 0561	734	865 6961
535	728 3538	585	767 1559	635	802 7737	685	835 6906	735	866 2873
536	729 1648	586	767 8976	636	803 4571	686	836 3241	736	866 8778
537	729 9743	587	768 6381	637	804 1394	687	836 9567	737	867 4675
538	730 7823	588	769 3773	638	804 8207	688	837 5884	738	868 0564
539	731 5888	589	770 1153	639	805 5009	689	838 2192	739	868 6444
540	732 3938	590	770 8520	640	806 1800	690	838 8491	740	869 2317
541	733 1973	591	771 5875	641	806 8580	691	839 4780	741	869 8182
542	733 9993	592	772 3217	642	807 5350	692	840 1061	742	870 4039
543	734 7998	593	773 0547	643	808 2110	693	840 7332	743	870 9888
544	735 5989	594	773 7864	644	808 8859	694	841 3595	744	871 5729
545	736 3965	595	774 5170	645	809 5597	695	841 9848	745	872 1563
546	737 1926	596	775 2463	646	810 2325	696	842 6092	746	872 7388
547	737 9873	597	775 9743	647	810 9043	697	843 2328	747	873 3206
548	738 7806	598	776 7012	648	811 5750	698	843 8554	748	873 9016
549	739 5723	599	777 4268	649	812 2447	699	844 4772	749	874 4818
550	740 3627	600	778 1513	650	812 9134	700	845 0980	750	875 0613
N.	Log.	N.	Log.	N.	Log.	N.	Log.	N.	Log.

N.	Log.	N.	Log.	N.	Log.	N.	Log.	N.	Log.
750	875 0613	800	903 0900	850	929 4189	900	954 2425	950	977 7236
751	875 6399	801	903 6325	851	929 9296	901	954 7248	951	978 1805
752	876 2178	802	904 1744	852	930 4396	902	955 2065	952	978 6369
753	876 7950	803	904 7155	853	930 9490	903	955 6878	953	979 0929
754	877 3713	804	905 2560	854	931 4579	904	956 1684	954	979 5484
755	877 9470	805	905 7959	855	931 9661	905	956 6486	955	980 0034
756	878 5218	806	906 3350	856	932 4738	906	957 1282	956	980 4579
757	879 0959	807	906 8735	857	932 9808	907	957 6073	957	980 9119
758	879 6692	808	907 4114	858	933 4873	908	958 0858	958	981 3655
759	880 2418	809	907 9485	859	933 9932	909	958 5639	959	981 8186
760	880 8136	810	908 4850	860	934 4985	910	959 0414	960	982 2712
761	881 3847	811	909 0209	861	935 0032	911	959 5184	961	982 7234
762	881 9550	812	909 5560	862	935 5073	912	959 9948	962	983 1751
763	882 5245	813	910 0905	863	936 0108	913	960 4708	963	983 6263
764	883 0934	814	910 6244	864	936 5137	914	960 9462	964	984 0770
765	883 6614	815	911 1576	865	937 0161	915	961 4211	965	984 5273
766	884 2288	816	911 6902	866	937 5179	916	961 8953	966	984 9771
767	884 7954	817	912 2221	867	938 0191	917	962 3693	967	985 4265
768	885 3612	818	912 7533	868	938 5197	918	962 8427	968	985 8754
769	885 9263	819	913 2839	869	939 0198	919	963 3155	969	986 3238
770	886 4907	820	913 8139	870	939 5193	920	963 7878	970	986 7717
771	887 0544	821	914 3432	871	940 0182	921	964 2596	971	987 2192
772	887 6173	822	914 8718	872	940 5165	922	964 7309	972	987 6663
773	888 1795	823	915 3998	873	941 0142	923	965 2017	973	988 1128
774	888 7410	824	915 9272	874	941 5114	924	965 6720	974	988 5590
775	889 3017	825	916 4539	875	942 0081	925	966 1417	975	989 0046
776	889 8617	826	916 9800	876	942 5041	926	966 6110	976	989 4498
777	890 4210	827	917 5055	877	942 9996	927	967 0797	977	989 8946
778	890 9796	828	918 0303	878	943 4945	928	967 5480	978	990 3389
779	891 5375	829	918 5545	879	943 9889	929	968 0157	979	990 7827
780	892 0946	830	919 0781	880	944 4827	930	968 4829	980	991 2261
781	892 6510	831	919 6010	881	944 9759	931	968 9497	981	991 6690
782	893 2068	832	920 1233	882	945 4686	932	969 4159	982	992 1113
783	893 7618	833	920 6450	883	945 9607	933	969 8816	983	992 5535
784	894 3161	834	921 1661	884	946 4523	934	970 3469	984	992 9951
785	894 8697	835	921 6865	885	946 9433	935	970 8116	985	993 4362
786	895 4225	836	922 2063	886	947 4337	936	971 2758	986	993 8769
787	895 9747	837	922 7253	887	947 9236	937	971 7396	987	994 3172
788	896 5262	838	923 2440	888	948 4130	938	972 2028	988	994 7569
789	897 0770	839	923 7620	889	948 9018	939	972 6656	989	995 1963
790	897 6271	840	924 2793	890	949 3900	940	973 1279	990	995 6352
791	898 1765	841	924 7960	891	949 8777	941	973 5896	991	996 0737
792	898 7252	842	925 3121	892	950 3649	942	974 0509	992	996 5117
793	899 2732	843	925 8276	893	950 8515	943	974 5117	993	996 9492
794	899 8205	844	926 3424	894	951 3375	944	974 9720	994	997 3864
795	900 3671	845	926 8567	895	951 8230	945	975 4318	995	997 8231
796	900 9131	846	927 3704	896	952 3080	946	975 8911	996	998 2593
797	901 4583	847	927 8834	897	952 7924	947	976 3500	997	998 6952
798	902 0029	848	928 3959	898	953 2763	948	976 8083	998	999 1305
799	902 5468	849	928 9077	899	953 7597	949	977 2662	999	999 5653
800	903 0900	850	929 4189	900	954 2425	950	977 7236	1000	000 0000
N	Log.	N.	Log.	N	Log.	N	Log	N	Log

N.	0	1	2	3	4	5	6	7	8	9
1000	000 0000	0434	0869	1303	1737	2171	2605	3039	3473	3907
01	4341	4775	5208	5642	6076	6510	6943	7377	7810	8244
02	8677	9111	9544	9977	0411	0844	1277	1710	2143	2576
03	001 3009	3442	3875	4308	4741	5174	5607	6039	6472	6905
04	7337	7770	8202	8635	9067	9499	9932	0364	0796	1228
05	002 1661	2093	2525	2957	3389	3821	4253	4685	5116	5548
06	5980	6411	6843	7275	7706	8138	8569	9001	9432	9863
07	003 0295	0726	1157	1588	2019	2451	2882	3313	3744	4174
08	4605	5036	5467	5898	6328	6759	7190	7620	8051	8481
09	8912	9342	9772	0203	0633	1063	1493	1924	2354	2784
1010	004 3214	3644	4074	4504	4933	5363	5793	6223	6652	7082
11	7512	7941	8371	8800	9229	9659	0088	0517	0947	1376
12	005 1805	2234	2663	3092	3521	3950	4379	4808	5237	5666
13	6094	6523	6952	7380	7809	8238	8666	9094	9523	9951
14	006 0380	0808	1236	1664	2092	2521	2949	3377	3805	4233
15	4660	5088	5516	5944	6372	6799	7227	7655	8082	8510
16	8937	9365	9792	0219	0647	1074	1501	1928	2355	2782
17	007 3210	3637	4064	4490	4917	5344	5771	6198	6624	7051
18	7478	7904	8331	8757	9184	9610	0037	0463	0889	1316
19	008 1742	2168	2594	3020	3446	3872	4298	4724	5150	5576
1020	6002	6427	6853	7279	7704	8130	8556	8981	9407	9832
21	009 0257	0683	1108	1533	1959	2384	2809	3234	3659	4084
22	4509	4934	5359	5784	6208	6633	7058	7483	7907	8332
23	8756	9181	9605	0030	0454	0878	1303	1727	2151	2575
24	010 3000	3424	3848	4272	4696	5120	5544	5967	6391	6815
25	7239	7662	8086	8510	8933	9357	9780	0204	0627	1050
26	011 1474	1897	2320	2743	3166	3590	4013	4436	4859	5282
27	5704	6127	6550	6973	7396	7818	8241	8664	9086	9509
28	9931	0354	0776	1198	1621	2043	2465	2887	3310	3732
29	012 4154	4576	4998	5420	5842	6264	6685	7107	7529	7951
1030	8372	8794	9215	9637	0059	0480	0901	1323	1744	2165
31	013 2587	3008	3429	3850	4271	4692	5113	5534	5955	6376
32	6797	7218	7639	8059	8480	8901	9321	9742	0162	0583
33	014 1003	1424	1844	2264	2685	3105	3525	3945	4365	4785
34	5205	5625	6045	6465	6885	7305	7725	8144	8564	8984
35	9403	9823	0243	0662	1082	1501	1920	2340	2759	3178
36	015 3598	4017	4436	4855	5274	5693	6112	6531	6950	7369
37	7788	8206	8625	9044	9462	9881	0300	0718	1137	1555
38	016 1974	2392	2810	3229	3647	4065	4483	4901	5319	5737
39	6155	6573	6991	7409	7827	8245	8663	9080	9498	9916
1040	017 0333	0751	1168	1586	2003	2421	2838	3256	3673	4090
41	4507	4924	5342	5759	6176	6593	7010	7427	7844	8260
42	8677	9094	9511	9927	0344	0761	1177	1594	2010	2427
43	018 2843	3259	3676	4092	4508	4925	5341	5757	6173	6589
44	7005	7421	7837	8253	8669	9084	9500	9916	0332	0747
45	019 1163	1578	1994	2410	2825	3240	3656	4071	4486	4902
46	5317	5732	6147	6562	6977	7392	7807	8222	8637	9052
47	9467	9882	0296	0711	1126	1540	1955	2369	2784	3198
48	020 3613	4027	4442	4856	5270	5684	6099	6513	6927	7341
49	7755	8169	8583	8997	9411	9824	0238	0652	1066	1479
1050	021 1893	2307	2720	3134	3547	3961	4374	4787	5201	5614
N.	0	1	2	3	4	5	6	7	8	9

P. P.

	435	434	433
1	43.5	43.4	43.3
2	87.0	86.8	86.6
3	130.5	130.2	129.9
4	174.0	173.6	173.2
5	217.5	217.0	216.5
6	261.0	260.4	259.8
7	304.5	303.8	303.1
8	348.0	347.2	346.4
9	391.5	390.6	389.7

	432	431	430
1	43.2	43.1	43.0
2	86.4	86.2	86.0
3	129.6	129.3	129.0
4	172.8	172.4	172.0
5	216.0	215.5	215.0
6	259.2	258.6	258.0
7	302.4	301.7	301.0
8	345.6	344.8	344.0
9	388.8	387.9	387.0

	429	428	427
1	42.9	42.8	42.7
2	85.8	85.6	85.4
3	128.7	128.4	128.1
4	171.6	171.2	170.8
5	214.5	214.0	213.5
6	257.4	256.8	256.2
7	300.3	299.6	298.9
8	343.2	342.4	341.6
9	386.1	385.2	384.3

	426	425	424
1	42.6	42.5	42.4
2	85.2	85.0	84.8
3	127.8	127.5	127.2
4	170.4	170.0	169.6
5	213.0	212.5	212.0
6	255.6	255.0	254.4
7	298.2	297.5	296.8
8	340.8	340.0	339.2
9	383.4	382.5	381.6

	423	422	421
1	42.3	42.2	42.1
2	84.6	84.4	84.2
3	126.9	126.6	126.3
4	169.2	168.8	168.4
5	211.5	211.0	210.5
6	253.8	253.2	252.6
7	296.1	295.4	294.7
8	338.4	337.6	336.8
9	380.7	379.8	378.9

	420	419	418
1	42.0	41.9	41.8
2	84.0	83.8	83.6
3	126.0	125.7	125.4
4	168.0	167.6	167.2
5	210.0	209.5	209.0
6	252.0	251.4	250.8
7	294.0	293.3	292.6
8	336.0	335.2	334.4
9	378.0	377.1	376.2

	417	416	415
1	41.7	41.6	41.5
2	83.4	83.2	83.0
3	125.1	124.8	124.5
4	166.8	166.4	166.0
5	208.5	208.0	207.5
6	250.2	249.6	249.0
7	291.9	291.2	290.5
8	333.6	332.8	332.0
9	375.3	374.4	373.5

P. P.

N.	0	1	2	3	4	5	6	7	8	9
1050	021 1893	2307	2720	3134	3547	3961	4374	4787	5201	5614
51	6027	6440	6854	7267	7680	8093	8506	8919	9332	9745
52	022 0157	0570	0983	1396	1808	2221	2634	3046	3459	3871
53	4284	4696	5109	5521	5933	6345	6758	7170	7582	7994
54	8406	8818	9230	9642	0054	0466	0878	1289	1701	2113
55	023 2525	2936	3348	3759	4171	4582	4994	5405	5817	6228
56	6639	7050	7462	7873	8284	8695	9106	9517	9928	0339
57	024 0750	1161	1572	1982	2393	2804	3214	3625	4036	4446
58	4857	5267	5678	6088	6498	6909	7319	7729	8139	8549
59	8960	9370	9780	0190	0600	1010	1419	1829	2239	2649
1060	025 3059	3468	3878	4288	4697	5107	5516	5926	6335	6744
61	7154	7563	7972	8382	8791	9200	9609	0018	0427	0836
62	026 1245	1654	2063	2472	2881	3289	3698	4107	4515	4924
63	5333	5741	6150	6558	6967	7375	7783	8192	8600	9008
64	9416	9824	0233	0641	1049	1457	1865	2273	2680	3088
65	027 3496	3904	4312	4719	5127	5535	5942	6350	6757	7165
66	7572	7979	8387	8794	9201	9609	0016	0423	0830	1237
67	028 1644	2051	2458	2865	3272	3679	4086	4492	4899	5306
68	5713	6119	6526	6932	7339	7745	8152	8558	8964	9371
69	9777	0183	0590	0996	1402	1808	2214	2620	3026	3432
1070	029 3838	4244	4649	5055	5461	5867	6272	6678	7084	7489
71	7895	8300	8706	9111	9516	9922	0327	0732	1138	1543
72	030 1948	2353	2758	3163	3568	3973	4378	4783	5188	5592
73	5997	6402	6807	7211	7616	8020	8425	8830	9234	9638
74	031 0043	0447	0851	1256	1660	2064	2468	2872	3277	3681
75	4085	4489	4893	5296	5700	6104	6508	6912	7315	7719
76	8123	8526	8930	9333	9737	0140	0544	0947	1350	1754
77	032 2157	2560	2963	3367	3770	4173	4576	4979	5382	5785
78	6188	6590	6993	7396	7799	8201	8604	9007	9409	9812
79	033 0214	0617	1019	1422	1824	2226	2629	3031	3433	3835
1080	4238	4640	5042	5444	5846	6248	6650	7052	7453	7855
81	8257	8659	9060	9462	9864	0265	0667	1068	1470	1871
82	034 2273	2674	3075	3477	3878	4279	4680	5081	5482	5884
83	6285	6686	7087	7487	7888	8289	8690	9091	9491	9892
84	035 0293	0693	1094	1495	1895	2296	2696	3096	3497	3897
85	4297	4698	5098	5498	5898	6298	6698	7098	7498	7898
86	8298	8698	9098	9498	9898	0297	0697	1097	1496	1896
87	036 2295	2695	3094	3494	3893	4293	4692	5091	5491	5890
88	6289	6688	7087	7486	7885	8284	8683	9082	9481	9880
89	037 0279	0678	1076	1475	1874	2272	2671	3070	3468	3867
1090	4265	4663	5062	5460	5858	6257	6655	7053	7451	7849
91	8248	8646	9044	9442	9839	0237	0635	1033	1431	1829
92	038 2226	2624	3022	3419	3817	4214	4612	5009	5407	5804
93	6202	6599	6996	7393	7791	8188	8585	8982	9379	9776
94	039 0173	0570	0967	1364	1761	2158	2554	2951	3348	3745
95	4141	4538	4934	5331	5727	6124	6520	6917	7313	7709
96	8106	8502	8898	9294	9690	0086	0482	0878	1274	1670
97	040 2066	2462	2858	3254	3650	4045	4441	4837	5232	5628
98	6023	6419	6814	7210	7605	8001	8396	8791	9187	9582
99	9977	0372	0767	1162	1557	1952	2347	2742	3137	3532
1100	041 3927	4322	4716	5111	5506	5900	6295	6690	7084	7479

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P. P.

	414	413	412
1	41.4	41.3	41.2
2	82.8	82.6	82.4
3	124.2	123.9	123.6
4	165.6	165.2	164.8
5	207.0	206.5	206.0
6	248.4	247.8	247.2
7	289.8	289.1	288.4
8	331.2	330.4	329.6
9	372.6	371.7	370.8

	411	410	409
1	41.1	41.0	40.9
2	82.2	82.0	81.8
3	123.3	123.0	122.7
4	164.4	164.0	163.6
5	205.5	205.0	204.5
6	246.6	246.0	245.4
7	287.7	287.0	286.3
8	328.8	328.0	327.2
9	369.9	369.0	368.1

	408	407	406
1	40.8	40.7	40.6
2	81.6	81.4	81.2
3	122.4	122.1	121.8
4	163.2	162.8	162.4
5	204.0	203.5	203.0
6	244.8	244.2	243.6
7	285.6	284.9	284.2
8	326.4	325.6	324.8
9	367.2	366.3	365.4

	405	404	403
1	40.5	40.4	40.3
2	81.0	80.8	80.6
3	121.5	121.2	120.9
4	162.0	161.6	161.2
5	202.5	202.0	201.5
6	243.0	242.4	241.8
7	283.5	282.8	282.1
8	324.0	323.2	322.4
9	364.5	363.6	362.7

	402	401	400
1	40.2	40.1	40.0
2	80.4	80.2	80.0
3	120.6	120.3	120.0
4	160.8	160.4	160.0
5	201.0	200.5	200.0
6	241.2	240.6	240.0
7	281.4	280.7	280.0
8	321.6	320.8	320.0
9	361.8	360.9	360.0

	399	398	397
1	39.9	39.8	39.7
2	79.8	79.6	79.4
3	119.7	119.4	119.1
4	159.6	159.2	158.8
5	199.5	199.0	198.5
6	239.4	238.8	238.2
7	279.3	278.6	277.9
8	319.2	318.4	317.6
9	359.1	358.2	357.3

	396	395	394
1	39.6	39.5	39.4
2	79.2	79.0	78.8
3	118.8	118.5	118.2
4	158.4	158.0	157.6
5	198.0	197.5	197.0
6	237.6	237.0	236.4
7	277.2	276.5	275.8
8	316.8	316.0	315.2
9	356.4	355.5	354.6

N.	0	1	2	3	4	5	6	7	8	9
1100	041 3927	4322	4716	5111	5506	5900	6295	6690	7084	7479
01	7873	8268	8662	9056	9451	9845	$\bar{0}239$	$\bar{0}633$	$\bar{1}028$	$\bar{1}422$
02	042 1816	2210	2604	2998	3392	3786	4180	4574	4968	5361
03	5755	6149	6543	6936	7330	7723	8117	8510	8904	9297
04	9691	$\bar{0}084$	$\bar{0}477$	$\bar{0}871$	$\bar{1}264$	$\bar{1}657$	$\bar{2}050$	$\bar{2}444$	$\bar{2}837$	$\bar{3}230$
05	043 3623	4016	4409	4802	5195	5587	5980	6373	6766	7159
06	7551	7944	8337	8729	9122	9514	9907	$\bar{0}299$	$\bar{0}692$	$\bar{1}084$
07	044 1476	1869	2261	2653	3045	3437	3829	4222	4614	5006
08	5398	5790	6181	6573	6965	7357	7749	8140	8532	8924
09	9315	9707	$\bar{0}099$	$\bar{0}490$	$\bar{0}882$	$\bar{1}273$	$\bar{1}664$	$\bar{2}056$	$\bar{2}447$	$\bar{2}839$
1110	045 3230	3621	4012	4403	4795	5186	5577	5968	6359	6750
11	7141	7531	7922	8313	8704	9095	9485	9876	$\bar{0}267$	$\bar{0}657$
12	046 1048	1438	1829	2219	2610	3000	3391	3781	4171	4561
13	4952	5342	5732	6122	6512	6902	7292	7682	8072	8462
14	8852	9242	9632	$\bar{0}021$	$\bar{0}411$	$\bar{0}801$	$\bar{1}190$	$\bar{1}580$	$\bar{1}970$	$\bar{2}359$
15	047 2749	3138	3528	3917	4306	4696	5085	5474	5864	6253
16	6642	7031	7420	7809	8198	8587	8976	9365	9754	$\bar{0}143$
17	048 0532	0921	1309	1698	2087	2475	2864	3253	3641	4030
18	4418	4806	5195	5583	5972	6360	6748	7136	7525	7913
19	8301	8689	9077	9465	9853	$\bar{0}241$	$\bar{0}629$	$\bar{1}017$	$\bar{1}405$	$\bar{1}792$
1120	049 2180	2568	2956	3343	3731	4119	4506	4894	5281	5669
21	6056	6444	6831	7218	7606	7993	8380	8767	9154	9541
22	9929	$\bar{0}316$	$\bar{0}703$	$\bar{1}090$	$\bar{1}477$	$\bar{1}863$	$\bar{2}250$	$\bar{2}637$	$\bar{3}024$	$\bar{3}411$
23	050 3798	4184	4571	4958	5344	5731	6117	6504	6890	7277
24	7663	8049	8436	8822	9208	9595	9981	$\bar{0}367$	$\bar{0}753$	$\bar{1}139$
25	051 1525	1911	2297	2683	3069	3455	3841	4227	4612	4998
26	5384	5770	6155	6541	6926	7312	7697	8083	8468	8854
27	9239	9624	$\bar{0}010$	$\bar{0}395$	$\bar{0}780$	$\bar{1}166$	$\bar{1}551$	$\bar{1}936$	$\bar{2}321$	$\bar{2}706$
28	052 3091	3476	3861	4246	4631	5016	5400	5785	6170	6555
29	6939	7324	7709	8093	8478	8862	9247	9631	$\bar{0}016$	$\bar{0}400$
1130	053 0784	1169	1553	1937	2321	2706	3090	3474	3858	4242
31	4626	5010	5394	5778	6162	6546	6929	7313	7697	8081
32	8464	8848	9232	9615	9999	$\bar{0}382$	$\bar{0}766$	$\bar{1}149$	$\bar{1}532$	$\bar{1}916$
33	054 2299	2682	3066	3449	3832	4215	4598	4981	5365	5748
34	6131	6514	6896	7279	7662	8045	8428	8811	9193	9576
35	9959	$\bar{0}341$	$\bar{0}724$	$\bar{1}106$	$\bar{1}489$	$\bar{1}871$	$\bar{2}254$	$\bar{2}636$	$\bar{3}019$	$\bar{3}401$
36	055 3783	4166	4548	4930	5312	5694	6077	6459	6841	7223
37	7605	7987	8369	8750	9132	9514	9896	$\bar{0}278$	$\bar{0}659$	$\bar{1}041$
38	056 1423	1804	2186	2567	2949	3330	3712	4093	4475	4856
39	5237	5619	6000	6381	6762	7143	7524	7905	8287	8668
1140	9049	9429	9810	$\bar{0}191$	$\bar{0}572$	$\bar{0}953$	$\bar{1}334$	$\bar{1}714$	$\bar{2}095$	$\bar{2}476$
41	057 2856	3237	3618	3998	4379	4759	5140	5520	5900	6281
42	6661	7041	7422	7802	8182	8562	8942	9322	9702	$\bar{0}082$
43	058 0462	0842	1222	1602	1982	2362	2741	3121	3501	3881
44	4260	4640	5019	5399	5778	6158	6537	6917	7296	7676
45	8055	8434	8813	9193	9572	9951	$\bar{0}330$	$\bar{0}709$	$\bar{1}088$	$\bar{1}467$
46	059 1846	2225	2604	2983	3362	3741	4119	4498	4877	5256
47	5634	6013	6391	6770	7148	7527	7905	8284	8662	9041
48	9419	9797	$\bar{0}175$	$\bar{0}554$	$\bar{0}932$	$\bar{1}310$	$\bar{1}688$	$\bar{2}066$	$\bar{2}444$	$\bar{2}822$
49	060 3200	3578	3956	4334	4712	5090	5468	5845	6223	6601
1150	6978	7356	7734	8111	8489	8866	9244	9621	9999	$\bar{0}376$
N.	0	1	2	3	4	5	6	7	8	9

P. P

	395	394	393
1	39.5	39.4	39.3
2	79.0	78.8	78.6
3	118.5	118.2	117.9
4	158.0	157.6	157.2
5	197.5	197.0	196.5
6	237.0	236.4	235.8
7	276.5	275.8	275.1
8	316.0	315.2	314.4
9	355.5	354.6	353.7

	392	391	390
1	39.2	39.1	39.0
2	78.4	78.2	78.0
3	117.6	117.3	117.0
4	156.8	156.4	156.0
5	196.0	195.5	195.0
6	235.2	234.6	234.0
7	274.4	273.7	273.0
8	313.6	312.8	312.0
9	352.8	351.9	351.0

	389	388	387
1	38.9	38.8	38.7
2	77.8	77.6	77.4
3	116.7	116.4	116.1
4	155.6	155.2	154.8
5	194.5	194.0	193.5
6	233.4	232.8	232.2
7	272.3	271.6	270.9
8	311.2	310.4	309.6
9	350.1	349.2	348.3

	386	385	384
1	38.6	38.5	38.4
2	77.2	77.0	76.8
3	115.8	115.5	115.2
4	154.4	154.0	153.6
5	193.0	192.5	192.0
6	231.6	231.0	230.4
7	270.2	269.5	268.8
8	308.8	308.0	307.2
9	347.4	346.5	345.6

	383	382	381
1	38.3	38.2	38.1
2	76.6	76.4	76.2
3	114.9	114.6	114.3
4	153.2	152.8	152.4
5	191.5	191.0	190.5
6	229.8	229.2	228.6
7	268.1	267.4	266.7
8	306.4	305.6	304.8
9	344.7	343.8	342.9

	380	379	378
1	38.0	37.9	37.8
2	76.0	75.8	75.6
3	114.0	113.7	113.4
4	152.0	151.6	151.2
5	190.0	189.5	189.0
6	228.0	227.4	226.8
7	266.0	265.3	264.6
8	304.0	303.2	302.4
9	342.0	341.1	340.2

	377
1	37.7
2	75.4
3	113.1
4	150.8
5	188.5
6	226.2
7	263.9
8	301.6
9	339.3

N.	0	1	2	3	4	5	6	7	8	9	P. P.
1150	060 6978	7356	7734	8111	8489	8866	9244	9621	9999	$\bar{0}376$	
51	061 0753	1131	1508	1885	2262	2639	3017	3394	3771	4148	
52	4525	4902	5279	5656	6032	6409	6786	7163	7540	7916	378 377 376
53	8293	8670	9046	9423	9799	$\bar{0}176$	$\bar{0}552$	$\bar{0}929$	$\bar{1}305$	$\bar{1}682$	1 37.8 37.7 37.6
54	062 2058	2434	2811	3187	3563	3939	4316	4692	5068	5444	2 75.6 75.4 75.2
55	5820	6196	6572	6948	7324	7699	8075	8451	8827	9203	3 113.4 113.1 112.8
56	9578	9954	$\bar{0}330$	$\bar{0}705$	$\bar{1}081$	$\bar{1}456$	$\bar{1}832$	$\bar{2}207$	$\bar{2}583$	$\bar{2}958$	4 151.2 150.8 150.4
57	063 3334	3709	4084	4460	4835	5210	5585	5960	6335	6711	5 189.0 188.5 188.0
58	7086	7461	7836	8211	8585	8960	9335	9710	$\bar{0}085$	$\bar{0}460$	6 226.8 226.2 225.6
59	064 0834	1209	1584	1958	2333	2708	3082	3457	3831	4205	7 264.6 263.9 263.2
1160	4580	4954	5329	5703	6077	6451	6826	7200	7574	7948	8 302.4 301.6 300.8
61	8322	8696	9070	9444	9818	$\bar{0}192$	$\bar{0}566$	$\bar{0}940$	$\bar{1}314$	$\bar{1}688$	9 340.2 339.3 338.4
62	065 2061	2435	2809	3182	3556	3930	4303	4677	5050	5424	
63	5797	6171	6544	6917	7291	7664	8037	8410	8784	9157	375 374 373
64	9530	9903	$\bar{0}276$	$\bar{0}649$	$\bar{1}022$	$\bar{1}395$	$\bar{1}768$	$\bar{2}141$	$\bar{2}514$	$\bar{2}886$	1 37.5 37.4 37.3
65	066 3259	3632	4005	4377	4750	5123	5495	5868	6241	6613	2 75.0 74.8 74.6
66	6986	7358	7730	8103	8475	8847	9220	9592	9964	$\bar{0}336$	3 112.5 112.2 111.9
67	067 0709	1081	1453	1825	2197	2569	2941	3313	3685	4057	4 150.0 149.6 149.2
68	4428	4800	5172	5544	5915	6287	6659	7030	7402	7774	5 187.5 187.0 186.5
69	8145	8517	8888	9259	9631	$\bar{0}002$	$\bar{0}374$	$\bar{0}745$	$\bar{1}116$	$\bar{1}487$	6 225.0 224.4 223.8
1170	068 1859	2230	2601	2972	3343	3714	4085	4456	4827	5198	7 262.5 261.8 261.1
71	5569	5940	6311	6681	7052	7423	7794	8164	8535	8906	8 300.0 299.2 298.4
72	9276	9647	$\bar{0}017$	$\bar{0}388$	$\bar{0}758$	$\bar{1}129$	$\bar{1}499$	$\bar{1}869$	$\bar{2}240$	$\bar{2}610$	9 337.5 336.6 335.7
73	069 2980	3350	3721	4091	4461	4831	5201	5571	5941	6311	
74	6681	7051	7421	7791	8160	8530	8900	9270	9639	$\bar{0}009$	372 371 370
75	070 0379	0748	1118	1487	1857	2226	2596	2965	3335	3704	1 37.2 37.1 37.0
76	4073	4442	4812	5181	5550	5919	6288	6658	7027	7396	2 74.4 74.2 74.0
77	7765	8134	8503	8871	9240	9609	9978	$\bar{0}347$	$\bar{0}715$	$\bar{1}084$	3 111.6 111.3 111.0
78	071 1453	1822	2190	2559	2927	3296	3664	4033	4401	4770	4 148.8 148.4 148.0
79	5138	5506	5873	6243	6611	6979	7348	7716	8084	8452	5 186.0 185.5 185.0
1180	8820	9188	9556	9924	$\bar{0}292$	$\bar{0}660$	$\bar{1}028$	$\bar{1}396$	$\bar{1}763$	$\bar{2}131$	6 223.2 222.6 222.0
81	072 2499	2867	3234	3602	3970	4337	4705	5072	5440	5807	7 260.4 259.7 259.0
82	6175	6542	6910	7277	7644	8011	8379	8746	9113	9480	8 297.6 296.8 296.0
83	9847	$\bar{0}215$	$\bar{0}582$	$\bar{0}949$	$\bar{1}316$	$\bar{1}683$	$\bar{2}050$	$\bar{2}416$	$\bar{2}783$	$\bar{3}150$	9 334.8 333.9 333.0
84	073 3517	3884	4251	4617	4984	5351	5717	6084	6450	6817	
85	7184	7550	7916	8283	8649	9016	9382	9748	$\bar{0}114$	$\bar{0}481$	369 368 367
86	074 0847	1213	1579	1945	2311	2677	3043	3409	3775	4141	1 36.9 36.8 36.7
87	4507	4873	5239	5605	5970	6336	6702	7068	7433	7799	2 73.8 73.6 73.4
88	8164	8530	8895	9261	9626	9992	$\bar{0}357$	$\bar{0}723$	$\bar{1}088$	$\bar{1}453$	3 110.7 110.4 110.1
89	075 1819	2184	2549	2914	3279	3644	4010	4375	4740	5105	4 147.6 147.2 146.8
1190	5470	5835	6199	6564	6929	7294	7659	8024	8388	8753	5 184.5 184.0 183.5
91	9118	9482	9847	$\bar{0}211$	$\bar{0}576$	$\bar{0}940$	$\bar{1}305$	$\bar{1}669$	$\bar{2}034$	$\bar{2}398$	6 221.4 220.8 220.2
92	076 2763	3127	3491	3855	4220	4584	4948	5312	5676	6040	7 258.3 257.6 256.9
93	6404	6768	7132	7496	7860	8224	8588	8952	9316	9680	8 295.2 294.4 293.6
94	077 0043	0407	0771	1134	1498	1862	2225	2589	2952	3316	9 332.1 331.2 330.3
95	3679	4042	4406	4769	5133	5496	5859	6222	6585	6949	
96	7312	7675	8038	8401	8764	9127	9490	9853	$\bar{0}216$	$\bar{0}579$	366 365 364
97	078 0942	1304	1667	2030	2393	2755	3118	3480	3843	4206	1 36.6 36.5 36.4
98	4568	4931	5293	5656	6018	6380	6743	7105	7467	7830	2 73.2 73.0 72.8
99	8192	8554	8916	9278	9640	$\bar{0}003$	$\bar{0}365$	$\bar{0}727$	$\bar{1}089$	$\bar{1}451$	3 109.8 109.5 109.2
1200	079 1812	2174	2536	2898	3260	3622	3983	4345	4707	5068	4 146.4 146.0 145.6
											5 183.0 182.5 182.0
											6 219.6 219.0 218.4
											7 256.2 255.5 254.8
											8 292.8 292.0 291.2
											9 329.4 328.5 327.6
											363 362 361
											1 36.3 36.2 36.1
											2 72.6 72.4 72.2
											3 108.9 108.6 108.3
											4 145.2 144.8 144.4
											5 181.5 181.0 180.5
											6 217.8 217.2 216.6
											7 254.1 253.4 252.7
											8 290.4 289.6 288.8
											9 326.7 325.8 324.9
N.	0	1	2	3	4	5	6	7	8	9	P. P.

N.	0	1	2	3	4	5	6	7	8	9
1200	079 1812	2174	2536	2898	3260	3622	3983	4345	4707	5068
01	5430	5792	6153	6515	6876	7238	7599	7961	8322	8683
02	9045	9406	9767	0128	0490	0851	1212	1573	1934	2295
03	080 2656	3017	3378	3739	4100	4461	4822	5183	5543	5904
04	6265	6626	6986	7347	7707	8068	8429	8789	9150	9510
05	9870	0231	0591	0952	1312	1672	2032	2393	2753	3113
06	081 3473	3833	4193	4553	4913	5273	5633	5993	6353	6713
07	7073	7432	7792	8152	8512	8871	9231	9591	9950	0310
08	082 0669	1029	1388	1748	2107	2467	2826	3185	3545	3904
09	4263	4622	4981	5341	5700	6059	6418	6777	7136	7495
1210	7854	8213	8571	8930	9289	9648	0007	0365	0724	1083
11	083 1441	1800	2159	2517	2876	3234	3593	3951	4309	4668
12	5026	5385	5743	6101	6459	6817	7176	7534	7892	8250
13	8608	8966	9324	9682	0040	0398	0756	1114	1471	1829
14	084 2187	2545	2902	3260	3618	3975	4333	4690	5048	5405
15	5763	6120	6478	6835	7192	7550	7907	8264	8621	8979
16	9336	9693	0050	0407	0764	1121	1478	1835	2192	2549
17	085 2906	3263	3619	3976	4333	4690	5046	5403	5760	6116
18	6473	6829	7186	7542	7899	8255	8612	8968	9324	9681
19	086 0037	0393	0750	1106	1462	1818	2174	2530	2886	3242
1220	3598	3954	4310	4666	5022	5378	5734	6089	6445	6801
21	7157	7512	7868	8224	8579	8935	9290	9646	0001	0357
22	087 0712	1067	1423	1778	2133	2489	2844	3199	3554	3909
23	4265	4620	4975	5330	5685	6040	6395	6750	7104	7459
24	7814	8169	8524	8878	9233	9588	9943	0297	0652	1006
25	088 1361	1715	2070	2424	2779	3133	3488	3842	4196	4550
26	4905	5259	5613	5967	6321	6676	7030	7384	7738	8092
27	8446	8800	9153	9507	9861	0215	0569	0923	1276	1630
28	089 1984	2337	2691	3045	3398	3752	4105	4459	4812	5165
29	5519	5872	6226	6579	6932	7285	7639	7992	8345	8698
1230	9051	9404	9757	0110	0463	0816	1169	1522	1875	2228
31	090 2581	2933	3286	3639	3991	4344	4697	5049	5402	5755
32	6107	6460	6812	7164	7517	7869	8222	8574	8926	9279
33	9631	9983	0335	0687	1039	1392	1744	2096	2448	2800
34	091 3152	3504	3855	4207	4559	4911	5263	5614	5966	6318
35	6670	7021	7373	7724	8076	8427	8779	9130	9482	9833
36	092 0185	0536	0887	1239	1590	1941	2292	2644	2995	3346
37	3697	4048	4399	4750	5101	5452	5803	6154	6505	6856
38	7206	7557	7908	8259	8609	8960	9311	9661	0012	0363
39	093 0713	1064	1414	1764	2115	2465	2816	3166	3516	3867
1240	4217	4567	4917	5267	5618	5968	6318	6668	7018	7368
41	7718	8068	8418	8768	9117	9467	9817	0167	0517	0866
42	094 1216	1566	1915	2265	2614	2964	3313	3663	4012	4362
43	4711	5061	5410	5759	6109	6458	6807	7156	7506	7855
44	8204	8553	8902	9251	9600	9949	0298	0647	0996	1345
45	095 1694	2042	2391	2740	3089	3437	3786	4135	4483	4832
46	5180	5529	5877	6226	6574	6923	7271	7620	7968	8316
47	8665	9013	9361	9709	0057	0406	0754	1102	1450	1798
48	096 2146	2494	2842	3190	3538	3885	4233	4581	4929	5277
49	5624	5972	6320	6667	7015	7363	7710	8058	8405	8753
1250	9100	9448	9795	0142	0490	0837	1184	1531	1879	2226
N.	0	1	2	3	4	5	6	7	8	9

P. P.			
	362	361	360
1	36.2	36.1	36.0
2	72.4	72.2	72.0
3	108.6	108.3	108.0
4	144.8	144.4	144.0
5	181.0	180.5	180.0
6	217.2	216.6	216.0
7	253.4	252.7	252.0
8	289.6	288.8	288.0
9	325.8	324.9	324.0
	359	358	357
1	35.9	35.8	35.7
2	71.8	71.6	71.4
3	107.7	107.4	107.1
4	143.6	143.2	142.8
5	179.5	179.0	178.5
6	215.4	214.8	214.2
7	251.3	250.6	249.9
8	287.2	286.4	285.6
9	323.1	322.2	321.3
	356	355	354
1	35.6	35.5	35.4
2	71.2	71.0	70.8
3	106.8	106.5	106.2
4	142.4	142.0	141.6
5	178.0	177.5	177.0
6	213.6	213.0	212.4
7	249.2	248.5	247.8
8	284.8	284.0	283.2
9	320.4	319.5	318.6
	353	352	351
1	35.3	35.2	35.1
2	70.6	70.4	70.2
3	105.9	105.6	105.3
4	141.2	140.8	140.4
5	176.5	176.0	175.5
6	211.8	211.2	210.6
7	247.1	246.4	245.7
8	282.4	281.6	280.8
9	317.7	316.8	315.9
	350	349	348
1	35.0	34.9	34.8
2	70.0	69.8	69.6
3	105.0	104.7	104.4
4	140.0	139.6	139.2
5	175.0	174.5	174.0
6	210.0	209.4	208.8
7	245.0	244.3	243.6
8	280.0	279.2	278.4
9	315.0	314.1	313.2
	347		
1	34.7		
2	69.4		
3	104.1		
4	138.8		
5	173.5		
6	208.2		
7	242.9		
8	277.6		
9	312.3		

N.	0	1	2	3	4	5	6	7	8	9
1250	096 9100	9448	9795	0142	0490	0837	1184	1531	1879	2226
51	097 2573	2920	3267	3614	3962	4309	4656	5003	5349	5696
52	6043	6390	6737	7084	7431	7777	8124	8471	8817	9164
53	9511	9857	0204	0550	0897	1243	1590	1936	2283	2629
54	098 2975	3322	3668	4014	4360	4707	5053	5399	5745	6091
55	6437	6783	7129	7475	7821	8167	8513	8859	9205	9551
56	9896	0242	0588	0934	1279	1625	1971	2316	2662	3007
57	099 3353	3698	4044	4389	4735	5080	5425	5771	6116	6461
58	6806	7152	7497	7842	8187	8532	8877	9222	9567	9912
59	100 0257	0602	0947	1292	1637	1982	2327	2671	3016	3361
1260	3705	4050	4395	4739	5084	5429	5773	6118	6462	6806
61	7151	7495	7840	8184	8528	8873	9217	9561	9905	0249
62	101 0594	0938	1282	1626	1970	2314	2658	3002	3346	3690
63	4034	4377	4721	5065	5409	5752	6096	6440	6784	7127
64	7471	7814	8158	8501	8845	9188	9532	9875	0219	0562
65	102 0905	1249	1592	1935	2278	2621	2965	3308	3651	3994
66	4337	4680	5023	5366	5709	6052	6395	6738	7081	7423
67	7766	8109	8452	8794	9137	9480	9822	0165	0507	0850
68	103 1193	1535	1877	2220	2562	2905	3247	3589	3932	4274
69	4616	4958	5301	5643	5985	6327	6669	7011	7353	7695
1270	8037	8379	8721	9063	9405	9747	0089	0430	0772	1114
71	104 1456	1797	2139	2480	2822	3164	3505	3847	4188	4530
72	4871	5213	5554	5895	6237	6578	6919	7260	7602	7943
73	8284	8625	8966	9307	9648	9989	0331	0671	1012	1353
74	105 1694	2035	2376	2717	3058	3398	3739	4080	4421	4761
75	5102	5442	5783	6124	6464	6805	7145	7486	7826	8166
76	8507	8847	9187	9528	9868	0208	0548	0889	1229	1569
77	106 1909	2249	2589	2929	3269	3609	3949	4289	4629	4969
78	5309	5648	5988	6328	6668	7007	7347	7687	8026	8366
79	8705	9045	9385	9724	0063	0403	0742	1082	1421	1760
1280	107 2100	2439	2778	3117	3457	3796	4135	4474	4813	5152
81	5491	5830	6169	6508	6847	7186	7525	7864	8203	8541
82	8880	9219	9558	9896	0235	0574	0912	1251	1590	1928
83	108 2267	2605	2944	3282	3620	3959	4297	4635	4974	5312
84	5650	5988	6327	6665	7003	7341	7679	8017	8355	8693
85	9031	9369	9707	0045	0383	0721	1059	1396	1734	2072
86	109 2410	2747	3085	3423	3760	4098	4435	4773	5111	5448
87	5785	6123	6460	6798	7135	7472	7810	8147	8484	8821
88	9159	9496	9833	0170	0507	0844	1181	1518	1855	2192
89	110 2529	2866	3203	3540	3877	4213	4550	4887	5224	5560
1290	5897	6234	6570	6907	7244	7580	7917	8253	8590	8926
91	9262	9599	9935	0272	0608	0944	1280	1617	1953	2289
92	111 2625	2961	3297	3633	3969	4306	4642	4977	5313	5649
93	5985	6321	6657	6993	7329	7664	8000	8336	8671	9007
94	9343	9678	0014	0350	0685	1021	1356	1691	2027	2362
95	112 2698	3033	3368	3704	4039	4374	4709	5045	5380	5715
96	6050	6385	6720	7055	7390	7725	8060	8395	8730	9065
97	9400	9735	0069	0404	0739	1074	1408	1743	2078	2412
98	113 2747	3081	3416	3751	4085	4420	4754	5088	5423	5757
99	6092	6426	6760	7094	7429	7763	8097	8431	8765	9099
1300	9434	9768	0102	0436	0770	1104	1437	1771	2105	2439

N.	0	1	2	3	4	5	6	7	8	9

P. P.

	348	347	346
1	34.8	34.7	34.6
2	69.6	69.4	69.2
3	104.4	104.1	103.8
4	139.2	138.8	138.4
5	174.0	173.5	173.0
6	208.8	208.2	207.6
7	243.6	242.9	242.2
8	278.4	277.6	276.8
9	313.2	312.3	311.4

	345	344	343
1	34.5	34.4	34.3
2	69.0	68.8	68.6
3	103.5	103.2	102.9
4	138.0	137.6	137.2
5	172.5	172.0	171.5
6	207.0	206.4	205.8
7	241.5	240.8	240.1
8	276.0	275.2	274.4
9	310.5	309.6	308.7

	342	341	340
1	34.2	34.1	34.0
2	68.4	68.2	68.0
3	102.6	102.3	102.0
4	136.8	136.4	136.0
5	171.0	170.5	170.0
6	205.2	204.6	204.0
7	239.4	238.7	238.0
8	273.6	272.8	272.0
9	307.8	306.9	306.0

	339	338	337
1	33.9	33.8	33.7
2	67.8	67.6	67.4
3	101.7	101.4	101.1
4	135.6	135.2	134.8
5	169.5	169.0	168.5
6	203.4	202.8	202.2
7	237.3	236.6	235.9
8	271.2	270.4	269.6
9	305.1	304.2	303.3

	336	335	334
1	33.6	33.5	33.4
2	67.2	67.0	66.8
3	100.8	100.5	100.2
4	134.4	134.0	133.6
5	168.0	167.5	167.0
6	201.6	201.0	200.4
7	235.2	234.5	233.8
8	268.8	268.0	267.2
9	302.4	301.5	300.6

	333
1	33.3
2	66.6
3	99.9
4	133.2
5	166.5
6	199.8
7	233.1
8	266.4
9	299.7

N.	0	1	2	3	4	5	6	7	8	9
1300	113 9434	9768	$\bar{0}102$	$\bar{0}436$	$\bar{0}770$	$\bar{1}104$	$\bar{1}437$	$\bar{1}771$	$\bar{2}105$	$\bar{2}439$
01	114 2773	3107	3441	3774	4108	4442	4775	5109	5443	5776
02	6110	6443	6777	7110	7444	7777	8111	8444	8777	9111
03	9444	9777	$\bar{0}111$	$\bar{0}444$	$\bar{0}777$	$\bar{1}110$	$\bar{1}444$	$\bar{1}777$	$\bar{2}110$	$\bar{2}443$
04	115 2776	3109	3442	3775	4108	4441	4774	5107	5439	5772
05	6105	6438	6771	7103	7436	7769	8101	8434	8767	9099
06	9432	9764	$\bar{0}097$	$\bar{0}429$	$\bar{0}762$	$\bar{1}094$	$\bar{1}427$	$\bar{1}759$	$\bar{2}091$	$\bar{2}424$
07	116 2756	3088	3420	3753	4085	4417	4749	5081	5413	5745
08	6077	6409	6741	7073	7405	7737	8069	8401	8733	9065
09	9396	9728	$\bar{0}060$	$\bar{0}392$	$\bar{0}723$	$\bar{1}055$	$\bar{1}387$	$\bar{1}718$	$\bar{2}050$	$\bar{2}381$
1310	117 2713	3044	3376	3707	4039	4370	4702	5033	5364	5696
11	6027	6358	6689	7021	7352	7683	8014	8345	8676	9007
12	9338	9669	$\bar{0}000$	$\bar{0}331$	$\bar{0}662$	$\bar{0}993$	$\bar{1}324$	$\bar{1}655$	$\bar{1}986$	$\bar{2}316$
13	118 2647	2978	3309	3639	3970	4301	4631	4962	5293	5623
14	5954	6284	6615	6945	7276	7606	7936	8267	8597	8927
15	9258	9588	9918	$\bar{0}248$	$\bar{0}578$	$\bar{0}909$	$\bar{1}239$	$\bar{1}569$	$\bar{1}899$	$\bar{2}229$
16	119 2559	2889	3219	3549	3879	4209	4539	4868	5198	5528
17	5858	6187	6517	6847	7177	7506	7836	8165	8495	8825
18	9154	9484	9813	$\bar{0}143$	$\bar{0}472$	$\bar{0}801$	$\bar{1}131$	$\bar{1}460$	$\bar{1}789$	$\bar{2}119$
19	120 2448	2777	3106	3436	3765	4094	4423	4752	5081	5410
1320	5739	6068	6397	6726	7055	7384	7713	8042	8371	8699
21	9028	9357	9686	$\bar{0}014$	$\bar{0}343$	$\bar{0}672$	$\bar{1}000$	$\bar{1}329$	$\bar{1}657$	$\bar{1}986$
22	121 2315	2643	2972	3300	3628	3957	4285	4614	4942	5270
23	5598	5927	6255	6583	6911	7239	7568	7896	8224	8552
24	8880	9208	9536	9864	$\bar{0}192$	$\bar{0}520$	$\bar{0}848$	$\bar{1}175$	$\bar{1}503$	$\bar{1}831$
25	122 2159	2487	2814	3142	3470	3797	4125	4453	4780	5108
26	5435	5763	6090	6418	6745	7073	7400	7727	8055	8382
27	8709	9036	9364	9691	$\bar{0}018$	$\bar{0}345$	$\bar{0}672$	$\bar{1}000$	$\bar{1}327$	$\bar{1}654$
28	123 1981	2308	2635	2962	3289	3616	3942	4269	4596	4923
29	5250	5577	5903	6230	6557	6883	7210	7537	7863	8190
1330	8516	8843	9169	9496	9822	$\bar{0}149$	$\bar{0}475$	$\bar{0}802$	$\bar{1}128$	$\bar{1}454$
31	124 1781	2107	2433	2759	3086	3412	3738	4064	4390	4716
32	5042	5368	5694	6020	6346	6672	6998	7324	7650	7976
33	8301	8627	8953	9279	9605	9930	$\bar{0}256$	$\bar{0}582$	$\bar{0}907$	$\bar{1}233$
34	125 1558	1884	2209	2535	2860	3186	3511	3837	4162	4487
35	4813	5138	5463	5788	6114	6439	6764	7089	7414	7739
36	8065	8390	8715	9040	9365	9690	$\bar{0}015$	$\bar{0}339$	$\bar{0}664$	$\bar{0}989$
37	126 1314	1639	1964	2288	2613	2938	3263	3587	3912	4237
38	4561	4886	5210	5535	5859	6184	6508	6833	7157	7481
39	7806	8130	8454	8779	9103	9427	9751	$\bar{0}076$	$\bar{0}400$	$\bar{0}724$
1340	127 1048	1372	1696	2020	2344	2668	2992	3316	3640	3964
41	4288	4612	4935	5259	5583	5907	6230	6554	6878	7202
42	7525	7849	8172	8496	8819	9143	9466	9790	$\bar{0}113$	$\bar{0}437$
43	128 0760	1083	1407	1730	2053	2377	2700	3023	3346	3670
44	3993	4316	4639	4962	5285	5608	5931	6254	6577	6900
45	7223	7546	7869	8191	8514	8837	9160	9483	9805	$\bar{0}128$
46	129 0451	0773	1096	1418	1741	2064	2386	2709	3031	3354
47	3676	3998	4321	4643	4965	5288	5610	5932	6255	6577
48	6899	7221	7543	7865	8187	8510	8832	9154	9476	9798
49	130 0119	0441	0763	1085	1407	1729	2051	2372	2694	3016
1350	3338	3659	3981	4303	4624	4946	5267	5589	5911	6232

N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	334	333
1	33.4	33.3
2	66.8	66.6
3	100.2	99.9
4	133.6	133.2
5	167.0	166.5
6	200.4	199.8
7	233.8	233.1
8	267.2	266.4
9	300.6	299.7

P. P.		
	332	331
1	33.2	33.1
2	66.4	66.2
3	99.6	99.3
4	132.8	132.4
5	166.0	165.5
6	199.2	198.6
7	232.4	231.7
8	265.6	264.8
9	298.8	297.9

P. P.		
	330	329
1	33.0	32.9
2	66.0	65.8
3	99.0	98.7
4	132.0	131.6
5	165.0	164.5
6	198.0	197.4
7	231.0	230.3
8	264.0	263.2
9	297.0	296.1

P. P.		
	328	327
1	32.8	32.7
2	65.6	65.4
3	98.4	98.1
4	131.2	130.8
5	164.0	163.5
6	196.8	196.2
7	229.6	228.9
8	262.4	261.6
9	295.2	294.3

P. P.		
	326	325
1	32.6	32.5
2	65.2	65.0
3	97.8	97.5
4	130.4	130.0
5	163.0	162.5
6	195.6	195.0
7	228.2	227.5
8	260.8	260.0
9	293.4	292.5

P. P.		
	324	323
1	32.4	32.3
2	64.8	64.6
3	97.2	96.9
4	129.6	129.2
5	162.0	161.5
6	194.4	193.8
7	226.8	226.1
8	259.2	258.4
9	291.6	290.7

P. P.		
	322	321
1	32.2	32.1
2	64.4	64.2
3	96.6	96.3
4	128.8	128.4
5	161.0	160.5
6	193.2	192.6
7	225.4	224.7
8	257.6	256.8
9	289.8	288.9

N.	0	1	2	3	4	5	6	7	8	9
1350	130 3338	3659	3981	4303	4624	4946	5267	5589	5911	6232
51	6553	6875	7196	7518	7839	8161	8482	8803	9124	9446
52	9767	$\bar{0}088$	$\bar{0}409$	$\bar{0}730$	$\bar{1}052$	$\bar{1}373$	$\bar{1}694$	$\bar{2}015$	$\bar{2}336$	$\bar{2}657$
53	131 2978	3299	3620	3941	4262	4583	4903	5224	5545	5866
54	6187	6507	6828	7149	7469	7790	8111	8431	8752	9072
55	9393	9713	$\bar{0}034$	$\bar{0}354$	$\bar{0}675$	$\bar{0}995$	$\bar{1}316$	$\bar{1}636$	$\bar{1}956$	$\bar{2}277$
56	132 2597	2917	3237	3558	3878	4198	4518	4838	5158	5478
57	5798	6119	6439	6758	7078	7398	7718	8038	8358	8678
58	8998	9317	9637	9957	$\bar{0}277$	$\bar{0}596$	$\bar{0}916$	$\bar{1}236$	$\bar{1}555$	$\bar{1}875$
59	133 2193	2514	2834	3153	3473	3792	4112	4431	4750	5070
1360	5389	5708	6028	6347	6666	6985	7305	7624	7943	8262
61	8581	8900	9219	9538	9857	$\bar{0}176$	$\bar{0}495$	$\bar{0}814$	$\bar{1}133$	$\bar{1}452$
62	134 1771	2090	2409	2728	3046	3365	3684	4003	4321	4640
63	4959	5277	5596	5914	6233	6551	6870	7188	7507	7825
64	8144	8462	8780	9099	9417	9735	$\bar{0}054$	$\bar{0}372$	$\bar{0}690$	$\bar{1}008$
65	135 1327	1645	1963	2281	2599	2917	3235	3553	3871	4189
66	4507	4825	5143	5461	5779	6096	6414	6732	7050	7367
67	7685	8003	8320	8638	8956	9273	9591	9908	$\bar{0}226$	$\bar{0}543$
68	136 0861	1178	1496	1813	2131	2448	2765	3083	3400	3717
69	4034	4352	4669	4986	5303	5620	5937	6255	6572	6889
1370	7206	7523	7840	8157	8473	8790	9107	9424	9741	$\bar{0}058$
71	137 0375	0691	1008	1325	1641	1958	2275	2591	2908	3225
72	3541	3858	4174	4491	4807	5124	5440	5756	6073	6389
73	6705	7022	7338	7654	7970	8287	8603	8919	9235	9551
74	9867	$\bar{0}183$	$\bar{0}499$	$\bar{0}815$	$\bar{1}131$	$\bar{1}447$	$\bar{1}763$	$\bar{2}079$	$\bar{2}395$	$\bar{2}711$
75	138 3027	3343	3659	3974	4290	4606	4922	5237	5553	5869
76	6184	6500	6816	7131	7447	7762	8078	8393	8709	9024
77	9339	9655	9970	$\bar{0}285$	$\bar{0}601$	$\bar{0}916$	$\bar{1}231$	$\bar{1}547$	$\bar{1}862$	$\bar{2}177$
78	139 2492	2807	3122	3438	3753	4068	4383	4698	5013	5328
79	5643	5958	6272	6587	6902	7217	7532	7847	8161	8476
1380	8791	9106	9420	9735	$\bar{0}050$	$\bar{0}364$	$\bar{0}679$	$\bar{0}993$	$\bar{1}308$	$\bar{1}622$
81	140 1937	2251	2566	2880	3195	3509	3823	4138	4452	4766
82	5080	5395	5709	6023	6337	6651	6966	7280	7594	7908
83	8222	8536	8850	9164	9478	9792	$\bar{0}106$	$\bar{0}419$	$\bar{0}733$	$\bar{1}047$
84	141 1361	1675	1988	2302	2616	2930	3243	3557	3871	4184
85	4498	4811	5125	5438	5752	6065	6379	6692	7006	7319
86	7632	7946	8259	8572	8885	9199	9512	9825	$\bar{0}138$	$\bar{0}451$
87	142 0765	1078	1391	1704	2017	2330	2643	2956	3269	3582
88	3895	4208	4520	4833	5146	5459	5772	6084	6397	6710
89	7022	7335	7648	7960	8273	8586	8898	9211	9523	9836
1390	143 0148	0460	0773	1085	1398	1710	2022	2335	2647	2959
91	3271	3584	3896	4208	4520	4832	5144	5456	5768	6080
92	6392	6704	7016	7328	7640	7952	8264	8576	8888	9199
93	9511	9823	$\bar{0}135$	$\bar{0}446$	$\bar{0}758$	$\bar{1}070$	$\bar{1}381$	$\bar{1}693$	$\bar{2}005$	$\bar{2}316$
94	144 2628	2939	3251	3562	3874	4185	4497	4808	5119	5431
95	5742	6053	6365	6676	6987	7298	7610	7921	8232	8543
96	8854	9165	9476	9787	$\bar{0}098$	$\bar{0}409$	$\bar{0}720$	$\bar{1}031$	$\bar{1}342$	$\bar{1}653$
97	145 1964	2275	2586	2897	3207	3518	3829	4140	4450	4761
98	5072	5382	5693	6004	6314	6625	6935	7246	7556	7867
99	8177	8488	8798	9108	9419	9729	$\bar{0}039$	$\bar{0}350$	$\bar{0}660$	$\bar{0}970$
1400	146 1280	1591	1901	2211	2521	2831	3141	3451	3761	4071
N.	0	1	2	3	4	5	6	7	8	9

P. P.

	322	321
1	32.2	32.1
2	64.4	64.2
3	96.6	96.3
4	128.8	128.4
5	161.0	160.5
6	193.2	192.6
7	225.4	224.7
8	257.6	256.8
9	289.8	288.9

	320	319
1	32.0	31.9
2	64.0	63.8
3	96.0	95.7
4	128.0	127.6
5	160.0	159.5
6	192.0	191.4
7	224.0	223.3
8	256.0	255.2
9	288.0	287.1

	318	317
1	31.8	31.7
2	63.6	63.4
3	95.4	95.1
4	127.2	126.8
5	159.0	158.5
6	190.8	190.2
7	222.6	221.9
8	254.4	253.6
9	286.2	285.3

	316	315
1	31.6	31.5
2	63.2	63.0
3	94.8	94.5
4	126.4	126.0
5	158.0	157.5
6	189.6	189.0
7	221.2	220.5
8	252.8	252.0
9	284.4	283.5

	314	313
1	31.4	31.3
2	62.8	62.6
3	94.2	93.9
4	125.6	125.2
5	157.0	156.5
6	188.4	187.8
7	219.8	219.1
8	251.2	250.4
9	282.6	281.7

	312	311
1	31.2	31.1
2	62.4	62.2
3	93.6	93.3
4	124.8	124.4
5	156.0	155.5
6	187.2	186.6
7	218.4	217.7
8	249.6	248.8
9	280.8	279.9

	310
1	31.0
2	62.0
3	93.0
4	124.0
5	155.0
6	186.0
7	217.0
8	248.0
9	279.0

N.	0	1	2	3	4	5	6	7	8	9
1400	146 1280	1591	1901	2211	2521	2831	3141	3451	3761	1071
01	4381	4691	5001	5311	5621	5931	6241	6551	6861	7170
02	7480	7790	8100	8409	8719	9029	9338	9648	9958	$\bar{0}$267
03	147 0577	0886	1196	1505	1815	2124	2434	2743	3052	3362
04	3671	3980	4290	4599	4908	5217	5527	5836	6145	6454
05	6763	7072	7381	7690	7999	8308	8617	8926	9235	9544
06	9853	$\bar{0}$162	$\bar{0}$471	$\bar{0}$780	$\bar{1}$089	$\bar{1}$397	$\bar{1}$706	$\bar{2}$015	$\bar{2}$324	$\bar{2}$632
07	148 2941	3250	3558	3867	4175	4484	4793	5101	5410	5718
08	6027	6335	6643	6952	7260	7569	7877	8185	8493	8802
09	9110	9418	9726	$\bar{0}$035	$\bar{0}$343	$\bar{0}$651	$\bar{0}$959	$\bar{1}$267	$\bar{1}$575	$\bar{1}$883
1410	149 2191	2499	2807	3115	3423	3731	4039	4347	4655	4962
11	5270	5578	5886	6193	6501	6809	7116	7424	7732	8039
12	8347	8655	8962	9270	9577	9885	$\bar{0}$192	$\bar{0}$499	$\bar{0}$807	$\bar{1}$114
13	150 1422	1729	2036	2344	2651	2958	3265	3573	3880	4187
14	4494	4801	5108	5415	5722	6030	6337	6644	6951	7257
15	7564	7871	8178	8485	8792	9099	9406	9712	$\bar{0}$019	$\bar{0}$326
16	151 0633	0939	1246	1553	1859	2166	2472	2779	3085	3392
17	3699	4005	4311	4618	4924	5231	5537	5843	6150	6456
18	6762	7069	7375	7681	7987	8293	8600	8906	9212	9518
19	9824	$\bar{0}$130	$\bar{0}$436	$\bar{0}$742	$\bar{1}$048	$\bar{1}$354	$\bar{1}$660	$\bar{1}$966	$\bar{2}$272	$\bar{2}$578
1420	152 2883	3189	3495	3801	4107	4412	4718	5024	5329	5635
21	5941	6246	6552	6858	7163	7469	7774	8080	8385	8691
22	8996	9301	9607	9912	$\bar{0}$217	$\bar{0}$523	$\bar{0}$828	$\bar{1}$133	$\bar{1}$439	$\bar{1}$744
23	153 2049	2354	2659	2964	3270	3575	3880	4185	4490	4795
24	5100	5405	5710	6015	6320	6625	6929	7234	7539	7844
25	8149	8453	8758	9063	9368	9672	9977	$\bar{0}$281	$\bar{0}$586	$\bar{0}$891
26	154 1195	1500	1804	2109	2413	2718	3022	3327	3631	3935
27	4240	4544	4848	5153	5457	5761	6065	6370	6674	6978
28	7282	7586	7890	8194	8498	8802	9106	9410	9714	$\bar{0}$018
29	155 0322	0626	0930	1234	1538	1842	2145	2449	2753	3057
1430	3360	3664	3968	4271	4575	4879	5182	5486	5789	6093
31	6396	6700	7003	7307	7610	7914	8217	8520	8824	9127
32	9430	9733	$\bar{0}$037	$\bar{0}$340	$\bar{0}$643	$\bar{0}$946	$\bar{1}$249	$\bar{1}$553	$\bar{1}$856	$\bar{2}$159
33	156 2462	2765	3068	3371	3674	3977	4280	4583	4886	5189
34	5492	5794	6097	6400	6703	7006	7308	7611	7914	8216
35	8519	8822	9124	9427	9729	$\bar{0}$032	$\bar{0}$334	$\bar{0}$637	$\bar{0}$939	$\bar{1}$242
36	157 1544	1847	2149	2452	2754	3056	3359	3661	3963	4265
37	4568	4870	5172	5474	5776	6079	6381	6683	6985	7287
38	7589	7891	8193	8495	8797	9099	9401	9702	$\bar{0}$004	$\bar{0}$306
39	158 0608	0910	1212	1513	1815	2117	2418	2720	3022	3323
1440	3625	3927	4228	4530	4831	5133	5434	5736	6037	6338
41	6640	6941	7243	7544	7845	8146	8448	8749	9050	9351
42	9653	9954	$\bar{0}$255	$\bar{0}$556	$\bar{0}$857	$\bar{1}$158	$\bar{1}$459	$\bar{1}$760	$\bar{2}$061	$\bar{2}$362
43	159 2663	2964	3265	3566	3867	4168	4469	4770	5070	5371
44	5672	5973	6273	6574	6875	7175	7476	7777	8077	8378
45	8678	8979	9280	9580	9881	$\bar{0}$181	$\bar{0}$481	$\bar{0}$782	$\bar{1}$082	$\bar{1}$383
46	160 1683	1983	2284	2584	2884	3184	3485	3785	4085	4385
47	4685	4985	5286	5586	5886	6186	6486	6786	7086	7386
48	7686	7986	8285	8585	8885	9185	9485	9785	$\bar{0}$084	$\bar{0}$384
49	161 0684	0984	1283	1583	1883	2182	2482	2781	3081	3380
1450	3680	3980	4279	4578	4878	5177	5477	5776	6075	6375

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P. P.

	311	310
1	31.1	31.0
2	62.2	62.0
3	93.3	93.0
4	124.4	124.0
5	155.5	155.0
6	186.6	186.0
7	217.7	217.0
8	248.8	248.0
9	279.9	279.0

	309	308
1	30.9	30.8
2	61.8	61.6
3	92.7	92.4
4	123.6	123.2
5	154.5	154.0
6	185.4	184.8
7	216.3	215.6
8	247.2	246.4
9	278.1	277.2

	307	306
1	30.7	30.6
2	61.4	61.2
3	92.1	91.8
4	122.8	122.4
5	153.5	153.0
6	184.2	183.6
7	214.9	214.2
8	245.6	244.8
9	276.3	275.4

	305	304
1	30.5	30.4
2	61.0	60.8
3	91.5	91.2
4	122.0	121.6
5	152.5	152.0
6	183.0	182.4
7	213.5	212.8
8	244.0	243.2
9	274.5	273.6

	303	302
1	30.3	30.2
2	60.6	60.4
3	90.9	90.6
4	121.2	120.8
5	151.5	151.0
6	181.8	181.2
7	212.1	211.4
8	242.4	241.6
9	272.7	271.8

	301	300
1	30.1	30.0
2	60.2	60.0
3	90.3	90.0
4	120.4	120.0
5	150.5	150.0
6	180.6	180.0
7	210.7	210.0
8	240.8	240.0
9	270.9	270.0

	299
1	29.9
2	59.8
3	89.7
4	119.6
5	149.5
6	179.4
7	209.3
8	239.2
9	269.1

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1450	161 3680	3980	4279	4578	4878	5177	5477	5776	6075	6375
51	6674	6973	7273	7572	7871	8170	8470	8769	9068	9367
52	9666	9965	0264	0563	0862	1161	1460	1759	2058	2357
53	162 2656	2955	3254	3553	3852	4150	4449	4748	5047	5345
54	5644	5943	6241	6540	6839	7137	7436	7734	8033	8331
55	8630	8928	9227	9525	9824	0122	0420	0719	1017	1315
56	163 1614	1912	2210	2508	2807	3105	3403	3701	3999	4297
57	4596	4894	5192	5490	5788	6086	6384	6682	6979	7277
58	7575	7873	8171	8469	8767	9064	9362	9660	9958	0255
59	164 0553	0851	1148	1446	1743	2041	2339	2636	2934	3231
1460	3529	3826	4123	4421	4718	5016	5313	5610	5908	6205
61	6502	6799	7097	7394	7691	7988	8285	8582	8880	9177
62	9474	9771	0068	0365	0662	0959	1256	1553	1850	2146
63	165 2443	2740	3037	3334	3631	3927	4224	4521	4817	5114
64	5411	5707	6004	6301	6597	6894	7190	7487	7783	8080
65	8376	8673	8969	9265	9562	9858	0153	0451	0747	1043
66	166 1340	1636	1932	2228	2525	2821	3117	3413	3709	4005
67	4301	4597	4893	5189	5485	5781	6077	6373	6669	6965
68	7261	7556	7852	8148	8444	8740	9035	9331	9627	9922
69	167 0218	0514	0809	1105	1400	1696	1991	2287	2582	2878
1470	3173	3469	3764	4060	4355	4650	4946	5241	5536	5831
71	6127	6422	6717	7012	7308	7603	7898	8193	8488	8783
72	9078	9373	9668	9963	0258	0553	0848	1143	1438	1733
73	168 2027	2322	2617	2912	3207	3501	3796	4091	4386	4680
74	4975	5269	5564	5859	6153	6448	6742	7037	7331	7626
75	7920	8215	8509	8803	9098	9392	9686	9981	0275	0569
76	169 0864	1158	1452	1746	2040	2335	2629	2923	3217	3511
77	3805	4099	4393	4687	4981	5275	5569	5863	6157	6450
78	6744	7038	7332	7626	7920	8213	8507	8801	9094	9388
79	9682	9975	0269	0563	0856	1150	1443	1737	2030	2324
1480	170 2617	2911	3204	3497	3791	4084	4377	4671	4964	5257
81	5551	5844	6137	6430	6723	7017	7310	7603	7896	8189
82	8482	8775	9068	9361	9654	9947	0240	0533	0826	1119
83	171 1412	1704	1997	2290	2583	2876	3168	3461	3754	4046
84	4339	4632	4924	5217	5509	5802	6095	6387	6680	6972
85	7265	7557	7849	8142	8434	8727	9019	9311	9604	9896
86	172 0188	0480	0773	1065	1357	1649	1941	2233	2526	2818
87	3110	3402	3694	3986	4278	4570	4862	5154	5446	5737
88	6029	6321	6613	6905	7197	7488	7780	8072	8364	8655
89	8947	9239	9530	9822	0113	0405	0697	0988	1280	1571
1490	173 1863	2154	2446	2737	3028	3320	3611	3903	4194	4485
91	4776	5068	5359	5650	5941	6233	6524	6815	7106	7397
92	7688	7979	8270	8561	8852	9143	9434	9725	0016	0307
93	174 0598	0889	1180	1471	1761	2052	2343	2634	2925	3215
94	3506	3797	4087	4378	4669	4959	5250	5540	5831	6121
95	6412	6702	6993	7283	7574	7864	8155	8445	8735	9026
96	9316	9606	9897	0187	0477	0767	1057	1348	1638	1928
97	175 2218	2508	2798	3088	3378	3668	3958	4248	4538	4828
98	5118	5408	5698	5988	6278	6567	6857	7147	7437	7727
99	8016	8306	8596	8885	9175	9465	9754	0044	0333	0623
1500	176 0913	1202	1492	1781	2071	2360	2649	2939	3228	3518

N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	300	299
1	30.0	29.9
2	60.0	59.8
3	90.0	89.7
4	120.0	119.6
5	150.0	149.5
6	180.0	179.4
7	210.0	209.3
8	240.0	239.2
9	270.0	269.1

	298	297
1	29.8	29.7
2	59.6	59.4
3	89.4	89.1
4	119.2	118.8
5	149.0	148.5
6	178.8	178.2
7	208.6	207.9
8	238.4	237.6
9	268.2	267.3

	296	295
1	29.6	29.5
2	59.2	59.0
3	88.8	88.5
4	118.4	118.0
5	148.0	147.5
6	177.6	177.0
7	207.2	206.5
8	236.8	236.0
9	266.4	265.5

	294	293
1	29.4	29.3
2	58.8	58.6
3	88.2	87.9
4	117.6	117.2
5	147.0	146.5
6	176.4	175.8
7	205.8	205.1
8	235.2	234.4
9	264.6	263.7

	292	291
1	29.2	29.1
2	58.4	58.2
3	87.6	87.3
4	116.8	116.4
5	146.0	145.5
6	175.2	174.6
7	204.4	203.7
8	233.6	232.8
9	262.8	261.9

	290	289
1	29.0	28.9
2	58.0	57.8
3	87.0	86.7
4	116.0	115.6
5	145.0	144.5
6	174.0	173.4
7	203.0	202.3
8	232.0	231.2
9	261.0	260.1

P. P.	

N.	0	1	2	3	4	5	6	7	8	9
1500	176 0913	1202	1492	1781	2071	2360	2649	2939	3228	3518
01	3807	4096	4386	4675	4964	5253	5543	5832	6121	6410
02	6699	6988	7278	7567	7856	8145	8434	8723	9012	9301
03	9590	9879	0168	0457	0745	1034	1323	1612	1901	2190
04	177 2478	2767	3056	3345	3633	3922	4211	4499	4788	5076
05	5365	5654	5942	6231	6519	6808	7096	7385	7673	7961
06	8250	8538	8826	9115	9403	9691	9980	0268	0556	0844
07	178 1133	1421	1709	1997	2285	2573	2861	3149	3437	3725
08	4013	4301	4589	4877	5165	5453	5741	6029	6317	6605
09	6892	7180	7468	7756	8043	8331	8619	8907	9194	9482
1510	9769	0057	0345	0632	0920	1207	1495	1782	2070	2357
11	179 2645	2932	3219	3507	3794	4082	4369	4656	4943	5231
12	5518	5805	6092	6380	6667	6954	7241	7528	7815	8102
13	8389	8676	8963	9250	9537	9824	0111	0398	0685	0972
14	180 1259	1546	1832	2119	2406	2693	2980	3266	3553	3840
15	4126	4413	4700	4986	5273	5559	5846	6133	6419	6706
16	6992	7278	7565	7851	8138	8424	8711	8997	9283	9570
17	9856	0142	0428	0715	1001	1287	1573	1859	2145	2432
18	181 2718	3004	3290	3576	3862	4148	4434	4720	5006	5292
19	5578	5864	6150	6435	6721	7007	7293	7579	7864	8150
1520	8436	8722	9007	9293	9579	9864	0150	0435	0721	1007
21	182 1292	1578	1863	2149	2434	2720	3005	3290	3576	3861
22	4147	4432	4717	5002	5288	5573	5858	6143	6429	6714
23	6999	7284	7569	7854	8140	8425	8710	8995	9280	9565
24	9850	0135	0420	0704	0989	1274	1559	1844	2129	2414
25	183 2698	2983	3268	3553	3837	4122	4407	4691	4976	5261
26	5545	5830	6114	6399	6684	6968	7253	7537	7822	8106
27	8390	8675	8959	9244	9528	9812	0096	0381	0665	0949
28	184 1234	1518	1802	2086	2370	2654	2939	3223	3507	3791
29	4075	4359	4643	4927	5211	5495	5779	6063	6347	6630
1530	6914	7198	7482	7766	8050	8333	8617	8901	9185	9468
31	9752	0036	0319	0603	0886	1170	1454	1737	2021	2304
32	185 2588	2871	3155	3438	3721	4005	4288	4572	4855	5138
33	5422	5705	5988	6271	6555	6838	7121	7404	7687	7970
34	8254	8537	8820	9103	9386	9669	9952	0235	0518	0801
35	186 1084	1367	1650	1932	2215	2498	2781	3064	3347	3629
36	3912	4195	4478	4760	5043	5326	5608	5891	6174	6456
37	6739	7021	7304	7586	7869	8151	8434	8716	8999	9281
38	9563	9846	0128	0410	0693	0975	1257	1540	1822	2104
39	187 2386	2668	2951	3233	3515	3797	4079	4361	4643	4925
1540	5207	5489	5771	6053	6335	6617	6899	7181	7463	7745
41	8026	8308	8590	8872	9154	9435	9717	9999	0280	0562
42	188 0844	1125	1407	1689	1970	2252	2533	2815	3096	3378
43	3659	3941	4222	4504	4785	5066	5348	5629	5910	6192
44	6473	6754	7035	7317	7598	7879	8160	8441	8723	9004
45	9285	9566	9847	0128	0409	0690	0971	1252	1533	1814
46	189 2095	2376	2657	2938	3218	3499	3780	4061	4342	4622
47	4903	5184	5465	5745	6026	6307	6587	6868	7148	7429
48	7710	7990	8271	8551	8832	9112	9393	9673	9953	0234
49	190 0514	0795	1075	1355	1636	1916	2196	2476	2757	3037
1550	3317	3597	3877	4157	4438	4718	4998	5278	5558	5838
N.	0	1	2	3	4	5	6	7	8	9

P.	P.	P.
	290	289
1	29.0	28.9
2	58.0	57.8
3	87.0	86.7
4	116.0	115.6
5	145.0	144.5
6	174.0	173.4
7	203.0	202.3
8	232.0	231.2
9	261.0	260.1
	288	287
1	28.8	28.7
2	57.6	57.4
3	86.4	86.1
4	115.2	114.8
5	144.0	143.5
6	172.8	172.2
7	201.6	200.9
8	230.4	229.6
9	259.2	258.3
	286	285
1	28.6	28.5
2	57.2	57.0
3	85.8	85.5
4	114.4	114.0
5	143.0	142.5
6	171.6	171.0
7	200.2	199.5
8	228.8	228.0
9	257.4	256.5
	284	283
1	28.4	28.3
2	56.8	56.6
3	85.2	84.9
4	113.6	113.2
5	142.0	141.5
6	170.4	169.8
7	198.8	198.1
8	227.2	226.4
9	255.6	254.7
	282	281
1	28.2	28.1
2	56.4	56.2
3	84.6	84.3
4	112.8	112.4
5	141.0	140.5
6	169.2	168.6
7	197.4	196.7
8	225.6	224.8
9	253.8	252.9
	280	
1	28.0	
2	56.0	
3	84.0	
4	112.0	
5	140.0	
6	168.0	
7	196.0	
8	224.0	
9	252.0	

N	0	1	2	3	4	5	6	7	8	9
1550	190 3317	3597	3877	4157	4438	4718	4998	5278	5558	5838
51	6118	6398	6678	6958	7238	7518	7798	8078	8357	8637
52	8917	9197	9477	9757	0036	0316	0596	0876	1155	1435
53	191 1715	1994	2274	2553	2833	3113	3392	3672	3951	4231
54	4510	4790	5069	5348	5628	5907	6187	6466	6745	7025
55	7304	7583	7862	8142	8421	8700	8979	9259	9538	9817
56	192 0096	0375	0654	0933	1212	1491	1770	2049	2328	2607
57	2886	3165	3444	3723	4002	4281	4559	4838	5117	5396
58	5675	5953	6232	6511	6789	7068	7347	7625	7904	8183
59	8461	8740	9018	9297	9575	9854	0132	0411	0689	0968
1560	193 1246	1524	1803	2081	2359	2638	2916	3194	3473	3751
61	4029	4307	4585	4864	5142	5420	5698	5976	6254	6532
62	6810	7088	7366	7644	7922	8200	8478	8756	9034	9312
63	9590	9868	0145	0423	0701	0979	1257	1534	1812	2090
64	194 2367	2645	2923	3200	3478	3756	4033	4311	4588	4866
65	5143	5421	5698	5976	6253	6531	6808	7086	7363	7640
66	7918	8195	8472	8749	9027	9304	9581	9858	0136	0413
67	195 0690	0967	1244	1521	1798	2075	2353	2630	2907	3184
68	3461	3738	4014	4291	4568	4845	5122	5399	5676	5953
69	6229	6506	6783	7060	7336	7613	7890	8167	8443	8720
1570	8997	9273	9550	9826	0103	0379	0656	0932	1209	1485
71	196 1762	2038	2315	2591	2867	3144	3420	3697	3973	4249
72	4525	4802	5078	5354	5630	5907	6183	6459	6735	7011
73	7287	7563	7839	8115	8391	8667	8943	9219	9495	9771
74	197 0047	0323	0599	0875	1151	1427	1702	1978	2254	2530
75	2806	3081	3357	3633	3908	4184	4460	4735	5011	5287
76	5562	5838	6113	6389	6664	6940	7215	7491	7766	8042
77	8317	8592	8868	9143	9418	9694	9969	0244	0520	0795
78	198 1070	1345	1620	1896	2171	2446	2721	2996	3271	3546
79	3821	4096	4371	4646	4921	5196	5471	5746	6021	6296
1580	6571	6846	7121	7395	7670	7945	8220	8495	8769	9044
81	9319	9593	9868	0143	0417	0692	0967	1241	1516	1790
82	199 2065	2339	2614	2888	3163	3437	3712	3986	4260	4535
83	4809	5083	5358	5632	5906	6181	6455	6729	7003	7278
84	7552	7826	8100	8374	8648	8922	9197	9471	9745	0019
85	200 0293	0567	0841	1115	1389	1662	1936	2210	2484	2758
86	3032	3306	3579	3853	4127	4401	4674	4948	5222	5496
87	5769	6043	6317	6590	6864	7137	7411	7684	7958	8231
88	8505	8778	9052	9325	9599	9872	0146	0419	0692	0966
89	201 1239	1512	1786	2059	2332	2605	2879	3152	3425	3698
1590	3971	4244	4517	4791	5064	5337	5610	5883	6156	6429
91	6702	6975	7248	7521	7794	8066	8339	8612	8885	9158
92	9431	9703	9976	0249	0522	0794	1067	1340	1612	1885
93	202 2158	2430	2703	2976	3248	3521	3793	4066	4338	4611
94	4883	5156	5428	5700	5973	6245	6518	6790	7062	7335
95	7607	7879	8151	8424	8696	8968	9240	9512	9785	0057
96	203 0329	0601	0873	1145	1417	1689	1961	2233	2505	2777
97	3049	3321	3593	3865	4137	4409	4681	4952	5224	5496
98	5768	6040	6311	6583	6855	7126	7398	7670	7941	8213
99	8485	8756	9028	9299	9571	9842	0114	0385	0657	0928
1600	204 1200	1471	1743	2014	2285	2557	2828	3099	3371	3642
N.	0	1	2	3	4	5	6	7	8	9

P. P.

	281	280
1	28.1	28.0
2	56.2	56.0
3	84.3	84.0
4	112.4	112.0
5	140.5	140.0
6	168.6	168.0
7	196.7	196.0
8	224.8	224.0
9	252.9	252.0

	279	278
1	27.9	27.8
2	55.8	55.6
3	83.7	83.4
4	111.6	111.2
5	139.5	139.0
6	167.4	166.8
7	195.3	194.6
8	223.2	222.4
9	251.1	250.2

	277	276
1	27 7	27.6
2	55.4	55.2
3	83.1	82.8
4	110.8	110 4
5	138.5	138.0
6	166.2	165.6
7	193.9	193.2
8	221.6	220.8
9	249.3	248.4

	275	274
1	27.5	27.4
2	55.0	54.8
3	82.5	82.2
4	110.0	109.6
5	137.5	137.0
6	165.0	164.4
7	192.5	191.8
8	220.0	219.2
9	247.5	246 6

	273	272
1	27 3	27 2
2	54.6	54.4
3	81.9	81 6
4	109.2	108.8
5	136.5	136.0
6	163.8	163.2
7	191.1	190.4
8	218.4	217.6
9	245.7	244.8

	271
1	27.1
2	54.2
3	81.3
4	108.4
5	135.5
6	162.6
7	189.7
8	216.8
9	243.9

N	0	1	2	3	4	5	6	7	8	9
1600	204 1200	1471	1743	2014	2285	2557	2828	3099	3371	3642
01	3913	4185	4456	4727	4998	5269	5541	5812	6083	6354
02	6625	6896	7167	7438	7709	7980	8251	8522	8793	9064
03	9335	9606	9877	$\bar{0}$148	$\bar{0}$419	$\bar{0}$690	$\bar{0}$960	1231	1502	1773
04	205 2044	2314	2585	2856	3127	3397	3668	3939	4209	4480
05	4750	5021	5292	5562	5833	6103	6374	6644	6915	7185
06	7455	7726	7996	8267	8537	8807	9078	9348	9618	9889
07	206 0159	0429	0699	0969	1240	1510	1780	2050	2320	2590
08	2860	3131	3401	3671	3941	4211	4481	4751	5021	5291
09	5560	5830	6100	6370	6640	6910	7180	7449	7719	7989
1610	8259	8529	8798	9068	9338	9607	9877	$\bar{0}$147	$\bar{0}$416	$\bar{0}$686
11	207 0955	1225	1495	1764	2034	2303	2573	2842	3112	3381
12	3650	3920	4189	4459	4728	4997	5267	5536	5805	6074
13	6344	6613	6882	7151	7421	7690	7959	8228	8497	8766
14	9035	9304	9573	9842	$\bar{0}$111	$\bar{0}$380	$\bar{0}$649	$\bar{0}$918	1187	1456
15	208 1725	1994	2263	2532	2801	3070	3338	3607	3876	4145
16	4414	4682	4951	5220	5488	5757	6026	6294	6563	6832
17	7100	7369	7637	7906	8174	8443	8711	8980	9248	9517
18	9785	$\bar{0}$054	$\bar{0}$322	$\bar{0}$590	$\bar{0}$859	1127	1395	1664	1932	$\bar{2}$200
19	209 2468	2737	3005	3273	3541	3810	4078	4346	4614	4882
1620	5150	5418	5686	5954	6222	6490	6758	7026	7294	7562
21	7830	8098	8366	8634	8902	9170	9437	9705	9973	$\bar{0}$241
22	210 0508	0776	1044	1312	1579	1847	2115	2382	2650	2918
23	3185	3453	3720	3988	4255	4523	4790	5058	5325	5593
24	5860	6128	6395	6662	6930	7197	7464	7732	7999	8266
25	8534	8801	9068	9335	9603	9870	$\bar{0}$137	$\bar{0}$404	$\bar{0}$671	$\bar{0}$938
26	211 1205	1472	1740	2007	2274	2541	2808	3075	3342	3609
27	3876	4142	4409	4676	4943	5210	5477	5744	6010	6277
28	6544	6811	7078	7344	7611	7878	8144	8411	8678	8944
29	9211	9477	9744	$\bar{0}$011	$\bar{0}$277	$\bar{0}$544	$\bar{0}$810	1077	1343	1610
1630	212 1876	2142	2409	2675	2942	3208	3474	3741	4007	4273
31	4540	4806	5072	5338	5605	5871	6137	6403	6669	6935
32	7202	7468	7734	8000	8266	8532	8798	9064	9330	9596
33	9862	$\bar{0}$128	$\bar{0}$394	$\bar{0}$660	$\bar{0}$926	1191	1457	1723	1989	$\bar{2}$255
34	213 2521	2786	3052	3318	3584	3849	4115	4381	4646	4912
35	5178	5443	5709	5974	6240	6505	6771	7037	7302	7568
36	7833	8098	8364	8629	8895	9160	9425	9691	9956	$\bar{0}$221
37	214 0487	0752	1017	1283	1548	1813	2078	2343	2609	2874
38	3139	3404	3669	3934	4199	4464	4730	4995	5260	5525
39	5790	6055	6319	6584	6849	7114	7379	7644	7909	8174
1640	8438	8703	8968	9233	9498	9762	$\bar{0}$027	$\bar{0}$292	$\bar{0}$556	$\bar{0}$821
41	215 1086	1350	1615	1880	2144	2409	2673	2938	3203	3467
42	3732	3996	4260	4525	4789	5054	5318	5583	5847	6111
43	6376	6640	6904	7169	7433	7697	7961	8226	8490	8754
44	9018	9282	9546	9811	$\bar{0}$075	$\bar{0}$339	$\bar{0}$603	$\bar{0}$867	1131	1395
45	216 1659	1923	2187	2451	2715	2979	3243	3507	3771	4034
46	4298	4562	4826	5090	5354	5617	5881	6145	6409	6672
47	6936	7200	7463	7727	7991	8254	8518	8781	9045	9309
48	9572	9836	$\bar{0}$099	$\bar{0}$363	$\bar{0}$626	$\bar{0}$890	1153	1416	1680	1943
49	217 2207	2470	2733	2997	3260	3523	3786	4050	4313	4576
1650	4839	5103	5366	5629	5892	6155	6418	6682	6945	7208
N.	0	1	2	3	4	5	6	7	8	9

P	P	
	272	271
1	27.2	27.1
2	54.4	54.2
3	81.6	81.3
4	108.8	108.4
5	136.0	135.5
6	163.2	162.6
7	190.4	189.7
8	217.6	216.8
9	244.8	243.9

P	P	
	270	269
1	27.0	26.9
2	54.0	53.8
3	81.0	80.7
4	108.0	107.6
5	135.0	134.5
6	162.0	161.4
7	189.0	188.3
8	216.0	215.2
9	243.0	242.1

P	P	
	268	267
1	26.8	26.7
2	53.6	53.4
3	80.4	80.1
4	107.2	106.8
5	134.0	133.5
6	160.8	160.2
7	187.6	186.9
8	214.4	213.6
9	241.2	240.3

P	P	
	266	265
1	26.6	26.5
2	53.2	53.0
3	79.8	79.5
4	106.4	106.0
5	133.0	132.5
6	159.6	159.0
7	186.2	185.5
8	212.8	212.0
9	239.4	238.5

P	P	
	264	263
1	26.4	26.3
2	52.8	52.6
3	79.2	78.9
4	105.6	105.2
5	132.0	131.5
6	158.4	157.8
7	184.8	184.1
8	211.2	210.4
9	237.6	236.7

N	0	1	2	3	4	5	6	7	8	9
1650	217 4839	5103	5366	5629	5892	6155	6418	6682	6945	7208
51	7471	7734	7997	8260	8523	8786	9049	9312	9575	9838
52	218 0100	0363	0626	0889	1152	1415	1677	1940	2203	2466
53	2729	2991	3254	3517	3779	4042	4305	4567	4830	5092
54	5355	5618	5880	6143	6405	6668	6930	7193	7455	7718
55	7980	8242	8505	8767	9030	9292	9554	9816	0079	0341
56	219 0603	0866	1128	1390	1652	1914	2177	2439	2701	2963
57	3225	3487	3749	4011	4273	4535	4797	5059	5321	5583
58	5845	6107	6369	6631	6893	7155	7417	7678	7940	8202
59	8464	8726	8987	9249	9511	9773	0034	0296	0558	0819
1660	220 1081	1342	1604	1866	2127	2389	2650	2912	3173	3435
61	3696	3958	4219	4481	4742	5003	5265	5526	5788	6049
62	6310	6571	6833	7094	7355	7617	7878	8139	8400	8661
63	8922	9184	9445	9706	9967	0228	0489	0750	1011	1272
64	221 1533	1794	2055	2316	2577	2838	3099	3360	3621	3882
65	4142	4403	4664	4925	5186	5446	5707	5968	6229	6489
66	6750	7011	7271	7532	7793	8053	8314	8574	8835	9095
67	9356	9617	9877	0138	0398	0658	0919	1179	1440	1700
68	222 1960	2221	2481	2741	3002	3262	3522	3783	4043	4303
69	4563	4824	5084	5344	5604	5864	6124	6384	6645	6905
1670	7165	7425	7685	7945	8205	8465	8725	8985	9245	9505
71	9764	0024	0284	0544	0804	1064	1324	1583	1843	2103
72	223 2363	2622	2882	3142	3402	3661	3921	4181	4440	4700
73	4959	5219	5479	5738	5998	6257	6517	6776	7036	7295
74	7555	7814	8073	8333	8592	8852	9111	9370	9630	9889
75	224 0148	0407	0667	0926	1185	1444	1704	1963	2222	2481
76	2740	2999	3258	3517	3777	4036	4295	4554	4813	5072
77	5331	5590	5849	6107	6366	6625	6884	7143	7402	7661
78	7920	8178	8437	8696	8955	9213	9472	9731	9990	0248
79	225 0507	0766	1024	1283	1541	1800	2059	2317	2576	2834
1680	3093	3351	3610	3868	4127	4385	4644	4902	5160	5419
81	5677	5935	6194	6452	6710	6969	7227	7485	7743	8002
82	8260	8518	8776	9034	9293	9551	9809	0067	0325	0583
83	226 0841	1099	1357	1615	1873	2131	2389	2647	2905	3163
84	3421	3679	3937	4194	4452	4710	4968	5226	5484	5741
85	5999	6257	6515	6772	7030	7288	7545	7803	8060	8318
86	8576	8833	9091	9348	9606	9863	0121	0378	0636	0893
87	227 1151	1408	1666	1923	2180	2438	2695	2953	3210	3467
88	3724	3982	4239	4496	4753	5011	5268	5525	5782	6039
89	6296	6554	6811	7068	7325	7582	7839	8096	8353	8610
1690	8867	9124	9381	9638	9895	0152	0409	0666	0922	1179
91	228 1436	1693	1950	2206	2463	2720	2977	3233	3490	3747
92	4004	4260	4517	4774	5030	5287	5543	5800	6057	6313
93	6570	6826	7083	7339	7596	7852	8108	8365	8621	8878
94	9134	9390	9647	9903	0159	0416	0672	0928	1185	1441
95	229 1697	1953	2209	2466	2722	2978	3234	3490	3746	4002
96	4258	4515	4771	5027	5283	5539	5795	6051	6307	6562
97	6818	7074	7330	7586	7842	8098	8354	8609	8865	9121
98	9377	9633	9888	0144	0400	0656	0911	1167	1423	1678
99	230 1934	2189	2445	2701	2956	3212	3467	3723	3978	4234
1700	4489	4745	5000	5256	5511	5766	6022	6277	6532	6788
N	0	1	2	3	4	5	6	7	8	9

P. P.		
	264	263
1	26.4	26.3
2	52.8	52.6
3	79.2	78.9
4	105.6	105.2
5	132.0	131.5
6	158.4	157.8
7	184.8	184.1
8	211.2	210.4
9	237.6	236.7

	262	261
1	26.2	26.1
2	52.4	52.2
3	78.6	78.3
4	104.8	104.4
5	131.0	130.5
6	157.2	156.6
7	183.4	182.7
8	209.6	208.8
9	235.8	234.9

	260	259
1	26.0	25.9
2	52.0	51.8
3	78.0	77.7
4	104.0	103.6
5	130.0	129.5
6	156.0	155.4
7	182.0	181.3
8	208.0	207.2
9	234.0	233.1

	258	257
1	25.8	25.7
2	51.6	51.4
3	77.4	77.1
4	103.2	102.8
5	129.0	128.5
6	154.8	154.2
7	180.6	179.9
8	206.4	205.6
9	232.2	231.3

	256	255
1	25.6	25.5
2	51.2	51.0
3	76.8	76.5
4	102.4	102.0
5	128.0	127.5
6	153.6	153.0
7	179.2	178.5
8	204.8	204.0
9	230.4	229.5

N.	0	1	2	3	4	5	6	7	8	9
1700	230 4489	4745	5000	5256	5511	5766	6022	6277	6532	6788
01	7043	7298	7554	7809	8064	8320	8575	8830	9085	9340
02	9596	9851	0106	0361	0616	0871	1126	1381	1636	1891
03	231 2146	2401	2656	2911	3166	3421	3676	3931	4186	4441
04	4696	4951	5206	5460	5715	5970	6225	6480	6734	6989
05	7244	7499	7753	8008	8263	8517	8772	9026	9281	9536
06	9790	0045	0299	0554	0808	1063	1317	1572	1826	2081
07	232 2335	2590	2844	3098	3353	3607	3861	4116	4370	4624
08	4879	5133	5387	5641	5896	6150	6404	6658	6912	7166
09	7421	7675	7929	8183	8437	8691	8945	9199	9453	9707
1710	9961	0215	0469	0723	0977	1231	1485	1739	1992	2246
11	233 2500	2754	3008	3262	3515	3769	4023	4277	4530	4784
12	5038	5291	5545	5799	6052	6306	6559	6813	7067	7320
13	7574	7827	8081	8334	8588	8841	9095	9348	9601	9855
14	234 0108	0362	0615	0868	1122	1375	1628	1881	2135	2388
15	2641	2894	3148	3401	3654	3907	4160	4414	4667	4920
16	5173	5426	5679	5932	6185	6438	6691	6944	7197	7450
17	7703	7956	8209	8462	8715	8967	9220	9473	9726	9979
18	235 0232	0484	0737	0990	1243	1495	1748	2001	2253	2506
19	2759	3011	3264	3517	3769	4022	4274	4527	4779	5032
1720	5284	5537	5789	6042	6294	6547	6799	7052	7304	7556
21	7809	8061	8313	8566	8818	9070	9323	9575	9827	0079
22	236 0331	0584	0836	1088	1340	1592	1844	2097	2349	2601
23	2853	3105	3357	3609	3861	4113	4365	4617	4869	5121
24	5373	5625	5876	6128	6380	6632	6884	7136	7387	7639
25	7891	8143	8394	8646	8898	9150	9401	9653	9905	0156
26	237 0408	0660	0911	1163	1414	1666	1917	2169	2420	2672
27	2923	3175	3426	3678	3929	4181	4432	4683	4935	5186
28	5437	5689	5940	6191	6443	6694	6945	7196	7448	7699
29	7950	8201	8452	8703	8955	9206	9457	9708	9959	0210
1730	238 0461	0712	0963	1214	1465	1716	1967	2218	2469	2720
31	2971	3222	3472	3723	3974	4225	4476	4727	4977	5228
32	5479	5730	5980	6231	6482	6732	6983	7234	7484	7735
33	7986	8236	8487	8737	8988	9238	9489	9739	9990	0240
34	239 0491	0741	0992	1242	1493	1743	1993	2244	2494	2744
35	2995	3245	3495	3746	3996	4246	4496	4747	4997	5247
36	5497	5747	5998	6248	6498	6748	6998	7248	7498	7748
37	7998	8248	8498	8748	8998	9248	9498	9748	9998	0248
38	240 0498	0748	0997	1247	1497	1747	1997	2247	2496	2746
39	2996	3246	3495	3745	3995	4244	4494	4744	4993	5243
1740	5492	5742	5992	6241	6491	6740	6990	7239	7489	7738
41	7988	8237	8487	8736	8985	9235	9484	9734	9983	0232
42	241 0482	0731	0980	1229	1479	1728	1977	2226	2476	2725
43	2974	3223	3472	3721	3970	4220	4469	4718	4967	5216
44	5465	5714	5963	6212	6461	6710	6959	7208	7457	7705
45	7954	8203	8452	8701	8950	9199	9447	9696	9945	0194
46	242 0442	0691	0940	1189	1437	1686	1935	2183	2432	2680
47	2929	3178	3426	3675	3923	4172	4420	4669	4917	5166
48	5414	5663	5911	6160	6408	6656	6905	7153	7401	7650
49	7898	8146	8395	8643	8891	9139	9388	9636	9884	0132
1750	243 0380	0629	0877	1125	1373	1621	1869	2117	2365	2613
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	256	255
1	25.6	25.5
2	51.2	51.0
3	76.8	76.5
4	102.4	102.0
5	128.0	127.5
6	153.6	153.0
7	179.2	178.5
8	204.8	204.0
9	230.4	229.5

P. P.		
	254	253
1	25.4	25.3
2	50.8	50.6
3	76.2	75.9
4	101.6	101.2
5	127.0	126.5
6	152.4	151.8
7	177.8	177.1
8	203.2	202.4
9	228.6	227.7

P. P.		
	252	251
1	25.2	25.1
2	50.4	50.2
3	75.6	75.3
4	100.8	100.4
5	126.0	125.5
6	151.2	150.6
7	176.4	175.7
8	201.6	200.8
9	226.8	225.9

P. P.		
	250	249
1	25.0	24.9
2	50.0	49.8
3	75.0	74.7
4	100.0	99.6
5	125.0	124.5
6	150.0	149.4
7	175.0	174.3
8	200.0	199.2
9	225.0	224.1

P. P.	
	248
1	24.8
2	49.6
3	74.4
4	99.2
5	124.0
6	148.8
7	173.6
8	198.4
9	223.2

N.	0	1	2	3	4	5	6	7	8	9
1750	243 0380	0629	0877	1125	1373	1621	1869	2117	2365	2613
51	2861	3109	3357	3605	3853	4101	4349	4597	4845	5093
52	5341	5589	5837	6085	6332	6580	6828	7076	7324	7571
53	7819	8067	8315	8562	8810	9058	9305	9553	9801	0048
54	244 0296	0543	0791	1039	1286	1534	1781	2029	2276	2524
55	2771	3019	3266	3514	3761	4008	4256	4503	4750	4998
56	5245	5492	5740	5987	6234	6482	6729	6976	7223	7470
57	7718	7965	8212	8459	8706	8953	9200	9448	9695	9942
58	245 0189	0436	0683	0930	1177	1424	1671	1918	2165	2411
59	2658	2905	3152	3399	3646	3893	4140	4386	4633	4880
1760	5127	5373	5620	5867	6114	6360	6607	6854	7100	7347
61	7594	7840	8087	8333	8580	8826	9073	9320	9566	9813
62	246 0059	0306	0552	0798	1045	1291	1538	1784	2030	2277
63	2523	2769	3016	3262	3508	3755	4001	4247	4493	4740
64	4986	5232	5478	5724	5970	6217	6463	6709	6955	7201
65	7447	7693	7939	8185	8431	8677	8923	9169	9415	9661
66	9907	0153	0399	0645	0891	1136	1382	1628	1874	2120
67	247 2365	2611	2857	3103	3349	3594	3840	4086	4331	4577
68	4823	5068	5314	5559	5805	6051	6296	6542	6787	7033
69	7278	7524	7769	8015	8260	8506	8751	8997	9242	9487
1770	9733	9978	0223	0469	0714	0959	1205	1450	1695	1940
71	248 2186	2431	2676	2921	3166	3412	3657	3902	4147	4392
72	4637	4882	5127	5372	5617	5862	6107	6352	6597	6842
73	7087	7332	7577	7822	8067	8312	8557	8802	9047	9291
74	9536	9781	0026	0271	0515	0760	1005	1249	1494	1739
75	249 1984	2228	2473	2718	2962	3207	3451	3696	3941	4185
76	4430	4674	4919	5163	5408	5652	5897	6141	6385	6630
77	6874	7119	7363	7607	7852	8096	8340	8585	8829	9073
78	9318	9562	9806	0050	0294	0539	0783	1027	1271	1515
79	250 1759	2004	2248	2492	2736	2980	3224	3468	3712	3956
1780	4200	4444	4688	4932	5176	5420	5664	5908	6151	6395
81	6639	6883	7127	7371	7614	7858	8102	8346	8590	8833
82	9077	9321	9564	9808	0052	0295	0539	0783	1026	1270
83	251 1513	1757	2001	2244	2488	2731	2975	3218	3462	3705
84	3949	4192	4435	4679	4922	5166	5409	5652	5896	6139
85	6382	6625	6869	7112	7355	7599	7842	8085	8328	8571
86	8815	9058	9301	9544	9787	0030	0273	0516	0759	1002
87	252 1246	1489	1732	1975	2218	2461	2703	2946	3189	3432
88	3675	3918	4161	4404	4647	4889	5132	5375	5618	5861
89	6103	6346	6589	6832	7074	7317	7560	7802	8045	8288
1790	8530	8773	9016	9258	9501	9743	9986	0228	0471	0713
91	253 0956	1198	1441	1683	1926	2168	2411	2653	2895	3138
92	3380	3622	3865	4107	4349	4592	4834	5076	5318	5561
93	5803	6045	6287	6529	6772	7014	7256	7498	7740	7982
94	8224	8466	8709	8951	9193	9435	9677	9919	0161	0403
95	254 0645	0886	1128	1370	1612	1854	2096	2338	2580	2822
96	3063	3305	3547	3789	4030	4272	4514	4756	4997	5239
97	5481	5722	5964	6206	6447	6689	6931	7172	7414	7655
98	7897	8138	8380	8621	8863	9104	9346	9587	9829	0070
99	255 0312	0553	0794	1036	1277	1519	1760	2001	2242	2484
1800	2725	2966	3208	3449	3690	3931	4172	4414	4655	4896

N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	249	248
1	24.9	24.8
2	49.8	49.6
3	74.7	74.4
4	99.6	99.2
5	124.5	124.0
6	149.4	148.8
7	174.3	173.6
8	199.2	198.4
9	224.1	223.2

P. P.		
	247	246
1	24.7	24.6
2	49.4	49.2
3	74.1	73.8
4	98.8	98.4
5	123.5	123.0
6	148.2	147.6
7	172.9	172.2
8	197.6	196.8
9	222.3	221.4

P. P.		
	245	244
1	24.5	24.4
2	49.0	48.8
3	73.5	73.2
4	98.0	97.6
5	122.5	122.0
6	147.0	146.4
7	171.5	170.8
8	196.0	195.2
9	220.5	219.6

P. P.		
	243	242
1	24.3	24.2
2	48.6	48.4
3	72.9	72.6
4	97.2	96.8
5	121.5	121.0
6	145.8	145.2
7	170.1	169.4
8	194.4	193.6
9	218.7	217.8

P. P.	
	241
1	24.1
2	48.2
3	72.3
4	96.4
5	120.5
6	144.6
7	168.7
8	192.8
9	216.9

N.	0	1	2	3	4	5	6	7	8	9
1800	255 2725	2966	3208	3449	3690	3931	4172	4414	4655	4896
01	5137	5378	5619	5860	6102	6343	6584	6825	7066	7307
02	7548	7789	8030	8271	8512	8753	8994	9235	9475	9716
03	9957	0198	0439	0680	0921	1161	1402	1643	1884	2125
04	256 2365	2606	2847	3087	3328	3569	3810	4050	4291	4531
05	4772	5013	5253	5494	5734	5975	6215	6456	6696	6937
06	7177	7418	7658	7899	8139	8380	8620	8860	9101	9341
07	9582	9822	0062	0302	0543	0783	1023	1264	1504	1744
08	257 1984	2224	2465	2705	2945	3185	3425	3665	3905	4146
09	4386	4626	4866	5106	5346	5586	5826	6066	6306	6546
1810	6786	7026	7266	7506	7745	7985	8225	8465	8705	8945
11	9185	9424	9664	9904	0144	0383	0623	0863	1103	1342
12	258 1582	1822	2061	2301	2541	2780	3020	3259	3499	3738
13	3978	4218	4457	4697	4936	5176	5415	5655	5894	6133
14	6373	6612	6852	7091	7330	7570	7809	8048	8288	8527
15	8766	9006	9245	9484	9723	9963	0202	0441	0680	0919
16	259 1158	1398	1637	1876	2115	2354	2593	2832	3071	3310
17	3549	3788	4027	4266	4505	4744	4983	5222	5461	5700
18	5939	6178	6417	6655	6894	7133	7372	7611	7849	8088
19	8327	8566	8804	9043	9282	9521	9759	9998	0237	0475
1820	260 0714	0952	1191	1430	1668	1907	2145	2384	2622	2861
21	3099	3338	3576	3815	4053	4292	4530	4769	5007	5245
22	5484	5722	5960	6199	6437	6675	6914	7152	7390	7628
23	7867	8105	8343	8581	8820	9058	9296	9534	9772	0010
24	261 0248	0486	0725	0963	1201	1439	1677	1915	2153	2391
25	2629	2867	3105	3343	3580	3818	4056	4294	4532	4770
26	5008	5246	5483	5721	5959	6197	6435	6672	6910	7148
27	7385	7623	7861	8099	8336	8574	8811	9049	9287	9524
28	9762	9999	0237	0475	0712	0950	1187	1425	1662	1900
29	262 2137	2374	2612	2849	3087	3324	3562	3799	4036	4274
1830	4511	4748	4986	5223	5460	5697	5935	6172	6409	6646
31	6883	7121	7358	7595	7832	8069	8306	8543	8781	9018
32	9255	9492	9729	9966	0203	0440	0677	0914	1151	1388
33	263 1625	1862	2098	2335	2572	2809	3046	3283	3520	3757
34	3993	4230	4467	4704	4940	5177	5414	5651	5887	6124
35	6361	6597	6834	7071	7307	7544	7780	8017	8254	8490
36	8727	8963	9200	9436	9673	9909	0146	0382	0619	0855
37	264 1092	1328	1564	1801	2037	2273	2510	2746	2982	3219
38	3455	3691	3928	4164	4400	4636	4873	5109	5345	5581
39	5817	6053	6290	6526	6762	6998	7234	7470	7706	7942
1840	8178	8414	8650	8886	9122	9358	9594	9830	0066	0302
41	265 0538	0774	1010	1246	1481	1717	1953	2189	2425	2660
42	2896	3132	3368	3604	3839	4075	4311	4546	4782	5018
43	5253	5489	5725	5960	6196	6431	6667	6903	7138	7374
44	7609	7845	8080	8316	8551	8787	9022	9257	9493	9728
45	9964	0199	0434	0670	0905	1140	1376	1611	1846	2082
46	266 2317	2552	2787	3023	3258	3493	3728	3963	4199	4434
47	4669	4904	5139	5374	5609	5844	6080	6315	6550	6785
48	7020	7255	7490	7725	7960	8195	8429	8664	8899	9134
49	9369	9604	9839	0074	0309	0543	0778	1013	1248	1483
1850	267 1717	1952	2187	2421	2656	2891	3126	3360	3595	3830
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	242	241
1	24.2	24.1
2	48.4	48.2
3	72.6	72.3
4	96.8	96.4
5	121.0	120.5
6	145.2	144.6
7	169.4	168.7
8	193.6	192.8
9	217.8	216.9

	240	239
1	24.0	23.9
2	48.0	47.8
3	72.0	71.7
4	96.0	95.6
5	120.0	119.5
6	144.0	143.4
7	168.0	167.3
8	192.0	191.2
9	216.0	215.1

	238	237
1	23.8	23.7
2	47.6	47.4
3	71.4	71.1
4	95.2	94.8
5	119.0	118.5
6	142.8	142.2
7	166.6	165.9
8	190.4	189.6
9	214.2	213.3

	236	235
1	23.6	23.5
2	47.2	47.0
3	70.8	70.5
4	94.4	94.0
5	118.0	117.5
6	141.6	141.0
7	165.2	164.5
8	188.8	188.0
9	212.4	211.5

N.	0	1	2	3	4	5	6	7	8	9
1850	267 1717	1952	2187	2421	2656	2891	3126	3360	3595	3830
51	4064	4299	4533	4768	5003	5237	5472	5706	5941	6175
52	6410	6644	6879	7113	7348	7582	7817	8051	8285	8520
53	8754	8989	9223	9457	9692	9926	0160	0394	0629	0863
54	268 1097	1332	1566	1800	2034	2268	2503	2737	2971	3205
55	3439	3673	3907	4141	4376	4610	4844	5078	5312	5546
56	5780	6014	6248	6482	6716	6950	7183	7417	7651	7885
57	8119	8353	8587	8821	9054	9288	9522	9756	9990	0223
58	269 0457	0691	0925	1158	1392	1626	1859	2093	2327	2560
59	2794	3028	3261	3495	3728	3962	4195	4429	4662	4896
1860	5129	5363	5596	5830	6063	6297	6530	6764	6997	7230
61	7464	7697	7930	8164	8397	8630	8864	9097	9330	9564
62	9797	0030	0263	0496	0730	0963	1196	1429	1662	1895
63	270 2129	2362	2595	2828	3061	3294	3527	3760	3993	4226
64	4459	4692	4925	5158	5391	5624	5857	6090	6323	6555
65	6788	7021	7254	7487	7720	7953	8185	8418	8651	8884
66	9116	9349	9582	9815	0047	0280	0513	0745	0978	1211
67	271 1443	1676	1908	2141	2374	2606	2839	3071	3304	3536
68	3769	4001	4234	4466	4699	4931	5163	5396	5628	5861
69	6093	6325	6558	6790	7022	7255	7487	7719	7952	8184
1870	8416	8648	8881	9113	9345	9577	9809	0041	0274	0506
71	272 0738	0970	1202	1434	1666	1898	2130	2362	2594	2826
72	3058	3290	3522	3754	3986	4218	4450	4682	4914	5146
73	5378	5610	5841	6073	6305	6537	6769	7001	7232	7464
74	7696	7928	8159	8391	8623	8854	9086	9318	9549	9781
75	273 0013	0244	0476	0708	0939	1171	1402	1634	1865	2097
76	2328	2560	2791	3023	3254	3486	3717	3949	4180	4411
77	4643	4874	5105	5337	5568	5799	6031	6262	6493	6725
78	6956	7187	7418	7650	7881	8112	8343	8574	8806	9037
79	9268	9499	9730	9961	0192	0423	0654	0885	1116	1347
1880	274 1578	1809	2040	2271	2502	2733	2964	3195	3426	3657
81	3888	4119	4350	4581	4811	5042	5273	5504	5735	5965
82	6196	6427	6658	6888	7119	7350	7581	7811	8042	8273
83	8503	8734	8964	9195	9426	9656	9887	0117	0348	0578
84	275 0809	1039	1270	1500	1731	1961	2192	2422	2653	2883
85	3114	3344	3574	3805	4035	4265	4496	4726	4956	5187
86	5417	5647	5877	6108	6338	6568	6798	7028	7259	7489
87	7719	7949	8179	8409	8640	8870	9100	9330	9560	9790
88	276 0020	0250	0480	0710	0940	1170	1400	1630	1860	2090
89	2320	2549	2779	3009	3239	3469	3699	3929	4158	4388
1890	4618	4848	5078	5307	5537	5767	5997	6226	6456	6686
91	6915	7145	7375	7604	7834	8063	8293	8523	8752	8982
92	9211	9441	9670	9900	0129	0359	0588	0818	1047	1277
93	277 1506	1736	1965	2194	2424	2653	2882	3112	3341	3570
94	3800	4029	4258	4488	4717	4946	5175	5405	5634	5863
95	6092	6321	6550	6780	7009	7238	7467	7696	7925	8154
96	8383	8612	8841	9070	9299	9528	9757	9986	0215	0444
97	278 0673	0902	1131	1360	1589	1818	2047	2276	2504	2733
98	2962	3191	3420	3648	3877	4106	4335	4564	4792	5021
99	5250	5478	5707	5936	6164	6393	6622	6850	7079	7307
1900	7536	7765	7993	8222	8450	8679	8907	9136	9364	9593
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	235	234
1	23.5	23.4
2	47.0	46.8
3	70.5	70.2
4	94.0	93.6
5	117.5	117.0
6	141.0	140.4
7	164.5	163.8
8	188.0	187.2
9	211.5	210.6

P. P.		
	233	232
1	23.3	23.2
2	46.6	46.4
3	69.9	69.6
4	93.2	92.8
5	116.5	116.0
6	139.8	139.2
7	163.1	162.4
8	186.4	185.6
9	209.7	208.8

P. P.		
	231	230
1	23.1	23.0
2	46.2	46.0
3	69.3	69.0
4	92.4	92.0
5	115.5	115.0
6	138.6	138.0
7	161.7	161.0
8	184.8	184.0
9	207.9	207.0

P. P.		
	229	228
1	22.9	22.8
2	45.8	45.6
3	68.7	68.4
4	91.6	91.2
5	114.5	114.0
6	137.4	136.8
7	160.3	159.6
8	183.2	182.4
9	206.1	205.2

N.	0	1	2	3	4	5	6	7	8	9
1900	278 7536	7765	7993	8222	8450	8679	8907	9136	9364	9593
01	9821	0050	0278	0506	0735	0963	1192	1420	1648	1877
02	279 2105	2333	2562	2790	3018	3247	3475	3703	3931	4160
03	4388	4616	4844	5072	5301	5529	5757	5985	6213	6441
04	6669	6898	7126	7354	7582	7810	8038	8266	8494	8722
05	8950	9178	9406	9634	9862	0090	0317	0545	0773	1001
06	280 1229	1457	1685	1912	2140	2368	2596	2824	3051	3279
07	3507	3735	3962	4190	4418	4645	4873	5101	5328	5556
08	5784	6011	6239	6467	6694	6922	7149	7377	7604	7832
09	8059	8287	8514	8742	8969	9197	9424	9651	9879	0106
1910	281 0334	0561	0788	1016	1243	1470	1698	1925	2152	2380
11	2607	2834	3061	3289	3516	3743	3970	4197	4425	4652
12	4879	5106	5333	5560	5787	6014	6242	6469	6696	6923
13	7150	7377	7604	7831	8058	8285	8512	8739	8966	9192
14	9419	9646	9873	0100	0327	0554	0781	1007	1234	1461
15	282 1688	1915	2141	2368	2595	2822	3048	3275	3502	3728
16	3955	4182	4408	4635	4862	5088	5315	5541	5768	5995
17	6221	6448	6674	6901	7127	7354	7580	7807	8033	8260
18	8486	8712	8939	9165	9392	9618	9844	0071	0297	0523
19	283 0750	0976	1202	1429	1655	1881	2107	2334	2560	2786
1920	3012	3238	3465	3691	3917	4143	4369	4595	4821	5048
21	5274	5500	5726	5952	6178	6404	6630	6856	7082	7308
22	7534	7760	7986	8212	8438	8663	8889	9115	9341	9567
23	9793	0019	0245	0470	0696	0922	1148	1373	1599	1825
24	284 2051	2276	2502	2728	2953	3179	3405	3630	3856	4082
25	4307	4533	4759	4984	5210	5435	5661	5886	6112	6337
26	6563	6788	7014	7239	7465	7690	7916	8141	8366	8592
27	8817	9043	9268	9493	9719	9944	0169	0394	0620	0845
28	285 1070	1296	1521	1746	1971	2196	2422	2647	2872	3097
29	3322	3547	3773	3998	4223	4448	4673	4898	5123	5348
1930	5573	5798	6023	6248	6473	6698	6923	7148	7373	7598
31	7823	8048	8273	8497	8722	8947	9172	9397	9622	9846
32	286 0071	0296	0521	0746	0970	1195	1420	1644	1869	2094
33	2319	2543	2768	2993	3217	3442	3666	3891	4116	4340
34	4565	4789	5014	5238	5463	5687	5912	6136	6361	6585
35	6810	7034	7259	7483	7707	7932	8156	8381	8605	8829
36	9054	9278	9502	9726	9951	0175	0399	0624	0848	1072
37	287 1296	1520	1745	1969	2193	2417	2641	2865	3090	3314
38	3538	3762	3986	4210	4434	4658	4882	5106	5330	5554
39	5778	6002	6226	6450	6674	6898	7122	7346	7570	7793
1940	8017	8241	8465	8689	8913	9136	9360	9584	9808	0032
41	288 0255	0479	0703	0927	1150	1374	1598	1821	2045	2269
42	2492	2716	2939	3163	3387	3610	3834	4057	4281	4504
43	4728	4952	5175	5399	5622	5845	6069	6292	6516	6739
44	6963	7186	7409	7633	7856	8079	8303	8526	8749	8973
45	9196	9419	9643	9866	0089	0312	0536	0759	0982	1205
46	289 1428	1652	1875	2098	2321	2544	2767	2990	3213	3436
47	3660	3883	4106	4329	4552	4775	4998	5221	5444	5667
48	5890	6112	6335	6558	6781	7004	7227	7450	7673	7896
49	8118	8341	8564	8787	9010	9232	9455	9678	9901	0123
1950	290 0346	0569	0792	1014	1237	1460	1682	1905	2127	2350
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	229	228
1	22.9	22.8
2	45.8	45.6
3	68.7	68.4
4	91.6	91.2
5	114.5	114.0
6	137.4	136.8
7	160.3	159.6
8	183.2	182.4
9	206.1	205.2

P. P.		
	227	226
1	22.7	22.6
2	45.4	45.2
3	68.1	67.8
4	90.8	90.4
5	113.5	113.0
6	136.2	135.6
7	158.9	158.2
8	181.6	180.8
9	204.3	203.4

P. P.		
	225	224
1	22.5	22.4
2	45.0	44.8
3	67.5	67.2
4	90.0	89.6
5	112.5	112.0
6	135.0	134.4
7	157.5	156.8
8	180.0	179.2
9	202.5	201.6

P. P.	
	223
1	22.3
2	44.6
3	66.9
4	89.2
5	111.5
6	133.8
7	156.1
8	178.4
9	200.7

N.	0	1	2	3	4	5	6	7	8	9
1950	290 0346	0569	0792	1014	1237	1460	1682	1905	2127	2350
51	2573	2795	3018	3240	3463	3686	3908	4131	4353	4576
52	4798	5021	5243	5466	5688	5910	6133	6355	6578	6800
53	7022	7245	7467	7690	7912	8134	8356	8579	8801	9023
54	9246	9468	9690	9912	0135	0357	0579	0801	1023	1245
55	291 1468	1690	1912	2134	2356	2578	2800	3022	3244	3466
56	3689	3911	4133	4355	4577	4799	5020	5242	5464	5686
57	5908	6130	6352	6574	6796	7018	7240	7461	7683	7905
58	8127	8349	8570	8792	9014	9236	9458	9679	9901	0123
59	292 0344	0566	0788	1009	1231	1453	1674	1896	2118	2339
1960	2561	2782	3004	3225	3447	3668	3890	4111	4333	4554
61	4776	4997	5219	5440	5662	5883	6105	6326	6547	6769
62	6990	7211	7433	7654	7875	8097	8318	8539	8760	8982
63	9203	9424	9645	9867	0088	0309	0530	0751	0973	1194
64	293 1415	1636	1857	2078	2299	2520	2741	2962	3183	3405
65	3626	3847	4068	4289	4510	4730	4951	5172	5393	5614
66	5835	6056	6277	6498	6719	6940	7160	7381	7602	7823
67	8044	8264	8485	8706	8927	9147	9368	9589	9810	0030
68	294 0251	0472	0692	0913	1134	1354	1575	1795	2016	2237
69	2457	2678	2898	3119	3339	3560	3780	4001	4221	4442
1970	4662	4883	5103	5324	5544	5764	5985	6205	6426	6646
71	6866	7087	7307	7527	7748	7968	8188	8408	8629	8849
72	9069	9289	9510	9730	9950	0170	0390	0610	0831	1051
73	295 1271	1491	1711	1931	2151	2371	2591	2811	3031	3251
74	3471	3691	3911	4131	4351	4571	4791	5011	5231	5451
75	5671	5891	6111	6331	6550	6770	6990	7210	7430	7650
76	7869	8089	8309	8529	8748	8968	9188	9408	9627	9847
77	296 0067	0286	0506	0726	0945	1165	1385	1604	1824	2043
78	2263	2482	2702	2922	3141	3361	3580	3800	4019	4238
79	4458	4677	4897	5116	5336	5555	5774	5994	6213	6433
1980	6652	6871	7091	7310	7529	7748	7968	8187	8406	8626
81	8845	9064	9283	9502	9722	9941	0160	0379	0598	0817
82	297 1037	1256	1475	1694	1913	2132	2351	2570	2789	3008
83	3227	3446	3665	3884	4103	4322	4541	4760	4979	5198
84	5417	5636	5854	6073	6292	6511	6730	6949	7168	7386
85	7605	7824	8043	8261	8480	8699	8918	9136	9355	9574
86	9792	0011	0230	0448	0667	0886	1104	1323	1542	1760
87	298 1979	2197	2416	2634	2853	3071	3290	3508	3727	3945
88	4164	4382	4601	4819	5038	5256	5474	5693	5911	6129
89	6348	6566	6785	7003	7221	7439	7658	7876	8094	8313
1990	8531	8749	8967	9185	9404	9622	9840	0058	0276	0494
91	299 0713	0931	1149	1367	1585	1803	2021	2239	2457	2675
92	2893	3111	3329	3547	3765	3983	4201	4419	4637	4855
93	5073	5291	5509	5727	5945	6162	6380	6598	6816	7034
94	7252	7469	7687	7905	8123	8340	8558	8776	8994	9211
95	9429	9647	9864	0082	0300	0517	0735	0953	1170	1388
96	300 1605	1823	2041	2258	2476	2693	2911	3128	3346	3563
97	3781	3998	4216	4433	4650	4868	5085	5303	5520	5737
98	5955	6172	6390	6607	6824	7042	7259	7476	7693	7911
99	8128	8345	8562	8780	8997	9214	9431	9648	9866	0083
2000	301 0300	0517	0734	0951	1168	1386	1603	1820	2037	2254

N.	0	1	2	3	4	5	6	7	8	9

P. P.

	223	222
1	22.3	22.2
2	44.6	44.4
3	66.9	66.6
4	89.2	88.8
5	111.5	111.0
6	133.8	133.2
7	156.1	155.4
8	178.4	177.6
9	200.7	199.8

	221	220
1	22.1	22.0
2	44.2	44.0
3	66.3	66.0
4	88.4	88.0
5	110.5	110.0
6	132.6	132.0
7	154.7	154.0
8	176.8	176.0
9	198.9	198.0

	219	218
1	21.9	21.8
2	43.8	43.6
3	65.7	65.4
4	87.6	87.2
5	109.5	109.0
6	131.4	130.8
7	153.3	152.6
8	175.2	174.4
9	197.1	196.2

	217
1	21.7
2	43.4
3	65.1
4	86.8
5	108.5
6	130.2
7	151.9
8	173.6
9	195.3

N.	0	1	2	3	4	5	6	7	8	9
2000	301 0300	0517	0734	0951	1168	1386	1603	1820	2037	2254
01	2471	2688	2905	3122	3339	3556	3773	3990	4207	4424
02	4641	4858	5075	5291	5508	5725	5942	6159	6376	6593
03	6809	7026	7243	7460	7677	7893	8110	8327	8544	8760
04	8977	9194	9411	9627	9844	0061	0277	0494	0711	0927
05	302 1144	1360	1577	1794	2010	2227	2443	2660	2876	3093
06	3309	3526	3742	3959	4175	4392	4608	4825	5041	5257
07	5474	5690	5906	6123	6339	6556	6772	6988	7204	7421
08	7637	7853	8070	8286	8502	8718	8935	9151	9367	9583
09	9799	0016	0232	0448	0664	0880	1096	1312	1528	1745
2010	303 1961	2177	2393	2609	2825	3041	3257	3473	3689	3905
11	4121	4337	4553	4769	4984	5200	5416	5632	5848	6064
12	6280	6496	6711	6927	7143	7359	7575	7790	8006	8222
13	8438	8653	8869	9085	9301	9516	9732	9948	0163	0379
14	304 0595	0810	1026	1242	1457	1673	1888	2104	2319	2535
15	2751	2966	3182	3397	3613	3828	4043	4259	4474	4690
16	4905	5121	5336	5552	5767	5982	6198	6413	6628	6844
17	7059	7274	7490	7705	7920	8135	8351	8566	8781	8996
18	9212	9427	9642	9857	0072	0288	0503	0718	0933	1148
19	305 1363	1578	1793	2008	2224	2439	2654	2869	3084	3299
2020	3514	3729	3944	4159	4374	4589	4803	5018	5233	5448
21	5663	5878	6093	6308	6523	6737	6952	7167	7382	7597
22	7812	8026	8241	8456	8671	8885	9100	9315	9529	9744
23	9959	0174	0388	0603	0817	1032	1247	1461	1676	1891
24	306 2105	2320	2534	2749	2963	3178	3392	3607	3821	4036
25	4250	4465	4679	4894	5108	5322	5537	5751	5966	6180
26	6394	6609	6823	7037	7252	7466	7680	7895	8109	8323
27	8537	8752	8966	9180	9394	9609	9823	0037	0251	0465
28	307 0680	0894	1108	1322	1536	1750	1964	2178	2392	2606
29	2820	3035	3249	3463	3677	3891	4105	4319	4532	4746
2030	4960	5174	5388	5602	5816	6030	6244	6458	6672	6885
31	7099	7313	7527	7741	7954	8168	8382	8596	8810	9023
32	9237	9451	9664	9878	0092	0306	0519	0733	0947	1160
33	308 1374	1587	1801	2015	2228	2442	2655	2869	3082	3296
34	3509	3723	3936	4150	4363	4577	4790	5004	5217	5431
35	5644	5858	6071	6284	6498	6711	6924	7138	7351	7564
36	7778	7991	8204	8418	8631	8844	9057	9271	9484	9697
37	9910	0123	0337	0550	0763	0976	1189	1402	1616	1829
38	309 2042	2255	2468	2681	2894	3107	3320	3533	3746	3959
39	4172	4385	4598	4811	5024	5237	5450	5663	5876	6089
2040	6302	6515	6727	6940	7153	7366	7579	7792	8004	8217
41	8430	8643	8856	9068	9281	9494	9707	9919	0132	0345
42	310 0557	0770	0983	1195	1408	1621	1833	2046	2258	2471
43	2684	2896	3109	3321	3534	3746	3959	4171	4384	4596
44	4809	5021	5234	5446	5659	5871	6084	6296	6508	6721
45	6933	7145	7358	7570	7783	7995	8207	8419	8632	8844
46	9056	9269	9481	9693	9905	0117	0330	0542	0754	0966
47	311 1178	1391	1603	1815	2027	2239	2451	2663	2875	3087
48	3300	3512	3724	3936	4148	4360	4572	4784	4996	5208
49	5420	5632	5843	6055	6267	6479	6691	6903	7115	7327
2050	7539	7750	7962	8174	8386	8598	8810	9021	9233	9445
N.	0	1	2	3	4	5	6	7	8	9

P. P.

	218	217
1	21.8	21.7
2	43.6	43.4
3	65.4	65.1
4	87.2	86.8
5	109.0	108.5
6	130.8	130.2
7	152.6	151.9
8	174.4	173.6
9	196.2	195.3

	216	215
1	21.6	21.5
2	43.2	43.0
3	64.8	64.5
4	86.4	86.0
5	108.0	107.5
6	129.6	129.0
7	151.2	150.5
8	172.8	172.0
9	194.4	193.5

	214	213
1	21.4	21.3
2	42.8	42.6
3	64.2	63.9
4	85.6	85.2
5	107.0	106.5
6	128.4	127.8
7	149.8	149.1
8	171.2	170.4
9	192.6	191.7

	212
1	21.2
2	42.4
3	63.6
4	84.8
5	106.0
6	127.2
7	148.4
8	169.6
9	190.8

N.	0	1	2	3	4	5	6	7	8	9
2050	311 7539	7750	7962	8174	8386	8598	8810	9021	9233	9445
51	9657	9868	0080	0292	0504	0715	0927	1139	1350	1562
52	312 1774	1985	2197	2408	2620	2832	3043	3255	3466	3678
53	3889	4101	4313	4524	4736	4947	5159	5370	5581	5793
54	6004	6216	6427	6639	6850	7061	7273	7484	7696	7907
55	8118	8330	8541	8752	8964	9175	9386	9597	9809	0020
56	313 0231	0442	0654	0865	1076	1287	1498	1709	1921	2132
57	2343	2554	2765	2976	3187	3398	3610	3821	4032	4243
58	4454	4665	4876	5087	5298	5509	5720	5931	6142	6353
59	6563	6774	6985	7196	7407	7618	7829	8040	8251	8461
2060	8672	8883	9094	9305	9515	9726	9937	0148	0358	0569
61	314 0780	0991	1201	1412	1623	1833	2044	2255	2465	2676
62	2887	3097	3308	3518	3729	3940	4150	4361	4571	4782
63	4992	5203	5413	5624	5834	6045	6255	6466	6676	6887
64	7097	7307	7518	7728	7939	8149	8359	8570	8780	8990
65	9201	9411	9621	9831	0042	0252	0462	0672	0883	1093
66	315 1303	1513	1724	1934	2144	2354	2564	2774	2985	3195
67	3405	3615	3825	4035	4245	4455	4665	4875	5085	5295
68	5505	5715	5925	6135	6345	6555	6765	6975	7185	7395
69	7605	7815	8025	8235	8444	8654	8864	9074	9284	9494
2070	9703	9913	0123	0333	0543	0752	0962	1172	1382	1591
71	316 1801	2011	2220	2430	2640	2849	3059	3269	3478	3688
72	3898	4107	4317	4526	4736	4945	5155	5364	5574	5784
73	5993	6203	6412	6621	6831	7040	7250	7459	7669	7878
74	8088	8297	8506	8716	8925	9134	9344	9553	9762	9972
75	317 0181	0390	0600	0809	1018	1227	1437	1646	1855	2064
76	2273	2483	2692	2901	3110	3319	3528	3738	3947	4156
77	4365	4574	4783	4992	5201	5410	5619	5828	6037	6246
78	6455	6664	6873	7082	7291	7500	7709	7918	8127	8336
79	8545	8754	8963	9172	9380	9589	9798	0007	0216	0425
2080	318 0633	0842	1051	1260	1468	1677	1886	2095	2303	2512
81	2721	2929	3138	3347	3556	3764	3973	4181	4390	4599
82	4807	5016	5224	5433	5642	5850	6059	6267	6476	6684
83	6893	7101	7310	7518	7727	7935	8143	8352	8560	8769
84	8977	9186	9394	9602	9811	0019	0227	0436	0644	0852
85	319 1061	1269	1477	1685	1894	2102	2310	2518	2727	2935
86	3143	3351	3559	3768	3976	4184	4392	4600	4808	5016
87	5224	5433	5641	5849	6057	6265	6473	6681	6889	7097
88	7305	7513	7721	7929	8137	8345	8553	8761	8969	9176
89	9384	9592	9800	0008	0216	0424	0632	0839	1047	1255
2090	320 1463	1671	1878	2086	2294	2502	2709	2917	3125	3333
91	3540	3748	3956	4163	4371	4579	4786	4994	5202	5409
92	5617	5824	6032	6240	6447	6655	6862	7070	7277	7485
93	7692	7900	8107	8315	8522	8730	8937	9145	9352	9559
94	9767	9974	0182	0389	0596	0804	1011	1218	1426	1633
95	321 1840	2048	2255	2462	2669	2877	3084	3291	3498	3706
96	3913	4120	4327	4534	4742	4949	5156	5363	5570	5777
97	5984	6191	6398	6606	6813	7020	7227	7434	7641	7848
98	8055	8262	8469	8676	8883	9090	9297	9504	9711	9917
99	322 0124	0331	0538	0745	0952	1159	1366	1572	1779	1986
2100	2193	2400	2607	2813	3020	3227	3434	3640	3847	4054
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	212	211
1	21.2	21.1
2	42.4	42.2
3	63.6	63.3
4	84.8	84.4
5	106.0	105.5
6	127.2	126.6
7	148.4	147.7
8	169.6	168.8
9	190.8	189.9

P. P.		
	210	209
1	21.0	20.9
2	42.0	41.8
3	63.0	62.7
4	84.0	83.6
5	105.0	104.5
6	126.0	125.4
7	147.0	146.3
8	168.0	167.2
9	189.0	188.1

P. P.		
	208	207
1	20.8	20.7
2	41.6	41.4
3	62.4	62.1
4	83.2	82.8
5	104.0	103.5
6	124.8	124.2
7	145.6	144.9
8	166.4	165.6
9	187.2	186.3

P. P.	
	206
1	20.6
2	41.2
3	61.8
4	82.4
5	103.0
6	123.6
7	144.2
8	164.8
9	185.4

N.	0	1	2	3	4	5	6	7	8	9
2100	322 2193	2400	2607	2813	3020	3227	3434	3640	3847	4054
01	4261	4467	4674	4881	5087	5294	5501	5707	5914	6121
02	6327	6534	6740	6947	7153	7360	7567	7773	7980	8186
03	8393	8599	8806	9012	9219	9425	9632	9838	$\bar{0}045$	$\bar{0}251$
04	323 0457	0664	0870	1077	1283	1489	1696	1902	2108	$231\bar{3}$
05	2521	2727	2934	3140	3346	3552	3759	$396\bar{3}$	4171	4377
06	4584	4790	4996	5202	5408	$561\bar{5}$	5821	6027	6233	6439
07	6645	6851	7058	7264	7470	7676	7882	8088	8294	8500
08	8706	8912	9118	9324	9530	9736	9942	$\bar{0}148$	$\bar{0}354$	$\bar{0}560$
09	324 0766	0972	1178	1384	1589	1795	2001	2207	2413	2619
2110	$282\bar{3}$	3030	3236	3442	3648	3854	4059	4265	4471	4677
11	4882	5088	5294	5499	5705	5911	6117	6322	6528	6734
12	6939	$714\bar{3}$	7350	7556	7762	7967	8173	8378	8584	8789
13	$899\bar{3}$	9201	9406	9612	9817	$\bar{0}023$	$\bar{0}228$	$\bar{0}433$	$\bar{0}639$	$\bar{0}844$
14	325 1050	1255	1461	1666	1872	2077	2282	2488	2693	2898
15	3104	3309	3514	3720	3925	4130	4336	4541	4746	4951
16	5157	5362	5567	5772	5978	6183	6388	6593	6798	7003
17	7209	7414	7619	7824	8029	8234	8439	8644	8849	$905\bar{3}$
18	9260	$946\bar{3}$	9670	$987\bar{3}$	$\bar{0}080$	$\bar{0}285$	$\bar{0}490$	$\bar{0}69\bar{3}$	$\bar{0}900$	$\bar{1}10\bar{3}$
19	326 1310	$151\bar{3}$	1719	1924	2129	2334	2539	2744	2949	3154
2120	3359	3563	3768	3973	4178	4383	4588	4792	4997	5202
21	5407	5611	5816	6021	6226	6430	6635	6840	7044	7249
22	7454	7658	7863	8068	8272	8477	8682	8886	9091	9295
23	9500	$970\bar{3}$	9909	$\bar{0}114$	$\bar{0}318$	$\bar{0}523$	$\bar{0}727$	$\bar{0}932$	$\bar{1}136$	$\bar{1}341$
24	327 1545	1750	1954	2158	2363	2567	2772	2976	3181	$338\bar{5}$
25	3589	3794	3998	4202	4407	4611	4815	5020	5224	5428
26	5633	5837	6041	6245	6450	6654	6858	7062	7267	7471
27	$767\bar{5}$	7879	8083	8287	8492	8696	8900	9104	9308	9512
28	9716	9920	$\bar{0}124$	$\bar{0}328$	$\bar{0}533$	$\bar{0}737$	$\bar{0}941$	$\bar{1}14\bar{5}$	$\bar{1}349$	$\bar{1}553$
29	328 1757	1961	$216\bar{5}$	2369	2572	2776	2980	3184	3388	3592
2130	3796	4000	4204	4408	4612	4815	5019	5223	5427	5631
31	5834	6038	6242	6446	6650	6853	7057	7261	$746\bar{5}$	7668
32	7872	8076	8279	8483	8687	8890	9094	9298	9501	$970\bar{3}$
33	9909	$\bar{0}112$	$\bar{0}316$	$\bar{0}519$	$\bar{0}723$	$\bar{0}926$	$\bar{1}130$	$\bar{1}334$	$\bar{1}537$	$\bar{1}741$
34	329 1944	2148	2351	$255\bar{3}$	2758	2962	3165	3369	3572	3775
35	3979	4182	4386	4589	4792	4996	5199	5402	5606	5809
36	6012	6216	6419	6622	6826	7029	7232	7436	7639	7842
37	8045	8248	8452	$865\bar{3}$	8858	9061	9264	9468	9671	9874
38	330 0077	0280	0483	0686	0889	1093	1296	1499	1702	$190\bar{3}$
39	2108	2311	2514	2717	2920	3123	3326	3529	3732	$393\bar{5}$
2140	4138	4341	4544	4747	4949	5152	5355	5558	5761	5964
41	6167	6370	6572	6775	6978	7181	7384	7586	7789	7992
42	$819\bar{5}$	8397	8600	8803	9006	9208	9411	9614	9816	$\bar{0}019$
43	331 0222	0424	0627	0830	1032	$123\bar{5}$	1437	1640	1843	2045
44	2248	2450	2653	2855	3058	3261	3463	3666	3868	4070
45	4273	4475	4678	4880	5083	5285	5488	5690	5892	$609\bar{5}$
46	6297	6500	6702	6904	7107	7309	7511	7714	7916	8118
47	8320	8523	$872\bar{5}$	8927	9129	9332	9534	9736	9938	$\bar{0}141$
48	332 0343	$054\bar{5}$	0747	0949	1151	1354	1556	1758	1960	2162
49	2364	2566	2768	2970	3172	3374	3577	3779	3981	4183
2150	$438\bar{5}$	4587	4789	4991	5193	5394	5596	5798	6000	6202

N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	207	206
1	20.7	20.6
2	41.4	41.2
3	62.1	61.8
4	82.8	82.4
5	103.5	103.0
6	124.2	123.6
7	144.9	144.2
8	165.6	164.8
9	186.3	185.4

P. P.		
	205	204
1	20.5	20.4
2	41.0	40.8
3	61.5	61.2
4	82.0	81.6
5	102.5	102.0
6	123.0	122.4
7	143.5	142.8
8	164.0	163.2
9	184.5	183.6

P. P.		
	203	202
1	20.3	20.2
2	40.6	40.4
3	60.9	60.6
4	81.2	80.8
5	101.5	101.0
6	121.8	121.2
7	142.1	141.4
8	162.4	161.6
9	182.7	181.8

N.	0	1	2	3	4	5	6	7	8	9
2150	332 4385	4587	4789	4991	5193	5394	5596	5798	6000	6202
51	6404	6606	6808	7010	7212	7414	7615	7817	8019	8221
52	8423	8624	8826	9028	9230	9432	9633	9835	0037	0239
53	333 0440	0642	0844	1045	1247	1449	1650	1852	2054	2255
54	2457	2659	2860	3062	3263	3465	3667	3868	4070	4271
55	4473	4674	4876	5077	5279	5480	5682	5883	6085	6286
56	6488	6689	6890	7092	7293	7495	7696	7897	8099	8300
57	8501	8703	8904	9105	9307	9508	9709	9911	0112	0313
58	334 0514	0716	0917	1118	1319	1521	1722	1923	2124	2325
59	2526	2728	2929	3130	3331	3532	3733	3934	4135	4336
2160	4538	4739	4940	5141	5342	5543	5744	5945	6146	6347
61	6548	6749	6950	7151	7351	7552	7753	7954	8155	8356
62	8557	8758	8959	9159	9360	9561	9762	9963	0164	0364
63	335 0565	0766	0967	1168	1368	1569	1770	1970	2171	2372
64	2573	2773	2974	3175	3375	3576	3777	3977	4178	4378
65	4579	4780	4980	5181	5381	5582	5782	5983	6183	6384
66	6585	6785	6986	7186	7386	7587	7787	7988	8188	8389
67	8589	8790	8990	9190	9391	9591	9791	9992	0192	0392
68	336 0593	0793	0993	1194	1394	1594	1795	1995	2195	2395
69	2596	2796	2996	3196	3396	3597	3797	3997	4197	4397
2170	4597	4797	4998	5198	5398	5598	5798	5998	6198	6398
71	6598	6798	6998	7198	7398	7598	7798	7998	8198	8398
72	8598	8798	8998	9198	9398	9598	9798	9998	0198	0397
73	337 0597	0797	0997	1197	1397	1596	1796	1996	2196	2396
74	2595	2795	2995	3195	3394	3594	3794	3994	4193	4393
75	4593	4792	4992	5192	5391	5591	5791	5990	6190	6389
76	6589	6788	6988	7188	7387	7587	7786	7986	8185	8385
77	8584	8784	8983	9183	9382	9582	9781	9981	0180	0379
78	338 0579	0778	0978	1177	1376	1576	1775	1974	2174	2373
79	2572	2772	2971	3170	3369	3569	3768	3967	4166	4366
2180	4565	4764	4963	5163	5362	5561	5760	5959	6158	6358
81	6557	6756	6955	7154	7353	7552	7751	7950	8149	8348
82	8547	8746	8946	9145	9344	9543	9742	9940	0139	0338
83	339 0537	0736	0935	1134	1333	1532	1731	1930	2129	2327
84	2526	2725	2924	3123	3322	3520	3719	3918	4117	4316
85	4514	4713	4912	5111	5309	5508	5707	5906	6104	6303
86	6502	6700	6899	7098	7296	7495	7693	7892	8091	8289
87	8488	8686	8885	9084	9282	9481	9679	9878	0076	0275
88	340 0473	0672	0870	1069	1267	1466	1664	1862	2061	2259
89	2458	2656	2854	3053	3251	3449	3648	3846	4045	4243
2190	4441	4639	4838	5036	5234	5433	5631	5829	6027	6226
91	6424	6622	6820	7018	7217	7415	7613	7811	8009	8207
92	8405	8604	8802	9000	9198	9396	9594	9792	9990	0188
93	341 0386	0584	0782	0980	1178	1376	1574	1772	1970	2168
94	2366	2564	2762	2960	3158	3356	3554	3752	3950	4147
95	4345	4543	4741	4939	5137	5334	5532	5730	5928	6126
96	6323	6521	6719	6917	7114	7312	7510	7708	7905	8103
97	8301	8498	8696	8894	9091	9289	9486	9684	9882	0079
98	342 0277	0474	0672	0870	1067	1265	1462	1660	1857	2055
99	2252	2450	2647	2845	3042	3240	3437	3635	3832	4029
2200	4227	4424	4622	4819	5016	5214	5411	5608	5806	6003

P. P.		
	202	201
1	20.2	20.1
2	40.4	40.2
3	60.6	60.3
4	80.8	80.4
5	101.0	100.5
6	121.2	120.6
7	141.4	140.7
8	161.6	160.8
9	181.8	180.9

P. P.		
	200	199
1	20.0	19.9
2	40.0	39.8
3	60.0	59.7
4	80.0	79.6
5	100.0	99.5
6	120.0	119.4
7	140.0	139.3
8	160.0	159.2
9	180.0	179.1

P. P.		
	198	197
1	19.8	19.7
2	39.6	39.4
3	59.4	59.1
4	79.2	78.8
5	99.0	98.5
6	118.8	118.2
7	138.6	137.9
8	158.4	157.6
9	178.2	177.3

N	0	1	2	3	4	5	6	7	8	9
2200	342 4227	4424	4622	4819	5016	5214	5411	5608	5806	6003
01	6200	6398	6595	6792	6990	7187	7384	7581	7779	7976
02	8173	8370	8568	8765	8962	9159	9356	9554	9751	9948
03	343 0145	0342	0539	0736	0933	1131	1328	1525	1722	1919
04	2116	2313	2510	2707	2904	3101	3298	3495	3692	3889
05	4086	4283	4480	4677	4874	5071	5268	5464	5661	5858
06	6055	6252	6449	6646	6842	7039	7236	7433	7630	7827
07	8023	8220	8417	8614	8810	9007	9204	9401	9597	9794
08	9991	0187	0384	0581	0777	0974	1171	1367	1564	1761
09	344 1957	2154	2350	2547	2743	2940	3137	3333	3530	3726
2210	3923	4119	4316	4512	4709	4905	5102	5298	5495	5691
11	5887	6084	6280	6477	6673	6869	7066	7262	7459	7655
12	7851	8048	8244	8440	8636	8833	9029	9225	9422	9618
13	9814	0010	0207	0403	0599	0795	0991	1188	1384	1580
14	345 1776	1972	2168	2365	2561	2757	2953	3149	3345	3541
15	3737	3933	4129	4325	4522	4718	4914	5110	5306	5502
16	5698	5894	6090	6285	6481	6677	6873	7069	7265	7461
17	7657	7853	8049	8245	8440	8636	8832	9028	9224	9420
18	9615	9811	0007	0203	0399	0594	0790	0986	1182	1377
19	346 1573	1769	1964	2160	2356	2551	2747	2943	3138	3334
2220	3530	3725	3921	4117	4312	4508	4703	4899	5094	5290
21	5486	5681	5877	6072	6268	6463	6659	6854	7050	7245
22	7441	7636	7831	8027	8222	8418	8613	8808	9004	9199
23	9395	9590	9785	9981	0176	0371	0567	0762	0957	1153
24	347 1348	1543	1738	1934	2129	2324	2519	2715	2910	3105
25	3300	3495	3691	3886	4081	4276	4471	4666	4861	5056
26	5252	5447	5642	5837	6032	6227	6422	6617	6812	7007
27	7202	7397	7592	7787	7982	8177	8372	8567	8762	8957
28	9152	9347	9542	9737	9931	0126	0321	0516	0711	0906
29	348 1101	1296	1490	1685	1880	2075	2270	2464	2659	2854
2230	3049	3243	3438	3633	3828	4022	4217	4412	4606	4801
31	4996	5190	5385	5580	5774	5969	6164	6358	6553	6747
32	6942	7136	7331	7526	7720	7915	8109	8304	8498	8693
33	8887	9082	9276	9471	9665	9860	0054	0248	0443	0637
34	349 0832	1026	1220	1415	1609	1804	1998	2192	2387	2581
35	2775	2970	3164	3358	3552	3747	3941	4135	4330	4524
36	4718	4912	5106	5301	5495	5689	5883	6077	6272	6466
37	6660	6854	7048	7242	7436	7630	7825	8019	8213	8407
38	8601	8795	8989	9183	9377	9571	9765	9959	0153	0347
39	350 0541	0735	0929	1123	1317	1511	1705	1898	2092	2286
2240	2480	2674	2868	3062	3256	3449	3643	3837	4031	4225
41	4419	4612	4806	5000	5194	5387	5581	5775	5969	6162
42	6356	6550	6743	6937	7131	7325	7518	7712	7905	8099
43	8293	8486	8680	8874	9067	9261	9454	9648	9841	0035
44	351 0229	0422	0616	0809	1003	1196	1390	1583	1777	1970
45	2163	2357	2550	2744	2937	3131	3324	3517	3711	3904
46	4098	4291	4484	4678	4871	5064	5258	5451	5644	5837
47	6031	6224	6417	6611	6804	6997	7190	7383	7577	7770
48	7963	8156	8349	8543	8736	8929	9122	9315	9508	9701
49	9895	0088	0281	0474	0667	0860	1053	1246	1439	1632
2250	352 1825	2018	2211	2404	2597	2790	2983	3176	3369	3562
N.	0	1	2	3	4	5	6	7	8	9

P. P.		
	198	197
1	19.8	19.7
2	39.6	39.4
3	59.4	59.1
4	79.2	78.8
5	99.0	98.5
6	118.8	118.2
7	138.6	137.9
8	158.4	157.6
9	178.2	177.3

P. P.		
	196	195
1	19.6	19.5
2	39.2	39.0
3	58.8	58.5
4	78.4	78.0
5	98.0	97.5
6	117.6	117.0
7	137.2	136.5
8	156.8	156.0
9	176.4	175.5

P. P.		
	194	193
1	19.4	19.3
2	38.8	38.6
3	58.2	57.9
4	77.6	77.2
5	97.0	96.5
6	116.4	115.8
7	135.8	135.1
8	155.2	154.4
9	174.6	173.7

N.	0	1	2	3	4	5	6	7	8	9
2250	352 1825	2018	2211	2404	2597	2790	2983	3176	3369	3562
51	3755	3948	4141	4334	4527	4720	4912	5105	5298	5491
52	5684	5877	6070	6262	6455	6648	6841	7034	7226	7419
53	7612	7805	7997	8190	8383	8576	8768	8961	9154	9346
54	9539	9732	9924	0117	0310	0502	0695	0888	1080	1273
55	353 1465	1658	1851	2043	2236	2428	2621	2813	3006	3198
56	3391	3583	3776	3968	4161	4353	4546	4738	4931	5123
57	5316	5508	5700	5893	6085	6278	6470	6662	6855	7047
58	7239	7432	7624	7816	8009	8201	8393	8586	8778	8970
59	9162	9355	9547	9739	9931	0123	0316	0508	0700	0892
2260	354 1084	1277	1469	1661	1853	2045	2237	2429	2621	2814
61	3006	3198	3390	3582	3774	3966	4158	4350	4542	4734
62	4926	5118	5310	5502	5694	5886	6078	6270	6462	6654
63	6846	7037	7229	7421	7613	7805	7997	8189	8381	8572
64	8764	8956	9148	9340	9531	9723	9915	0107	0299	0490
65	355 0682	0874	1066	1257	1449	1641	1832	2024	2216	2407
66	2599	2791	2982	3174	3366	3557	3749	3940	4132	4324
67	4515	4707	4898	5090	5281	5473	5664	5856	6048	6239
68	6431	6622	6813	7005	7196	7388	7579	7771	7962	8154
69	8345	8536	8728	8919	9111	9302	9493	9685	9876	0067
2270	356 0259	0450	0641	0832	1024	1215	1406	1598	1789	1980
71	2171	2363	2554	2745	2936	3127	3319	3510	3701	3892
72	4083	4274	4466	4657	4848	5039	5230	5421	5612	5803
73	5994	6185	6376	6568	6759	6950	7141	7332	7523	7714
74	7905	8096	8287	8478	8668	8859	9050	9241	9432	9623
75	9814	0005	0196	0387	0578	0768	0959	1150	1341	1532
76	357 1723	1913	2104	2295	2486	2677	2867	3058	3249	3440
77	3630	3821	4012	4202	4393	4584	4775	4965	5156	5347
78	5537	5728	5918	6109	6300	6490	6681	6872	7062	7253
79	7443	7634	7824	8015	8205	8396	8586	8777	8967	9158
2280	9348	9539	9729	9920	0110	0301	0491	0682	0872	1062
81	358 1253	1443	1634	1824	2014	2205	2395	2585	2776	2966
82	3156	3347	3537	3727	3918	4108	4298	4488	4679	4869
83	5059	5249	5440	5630	5820	6010	6200	6391	6581	6771
84	6961	7151	7341	7531	7722	7912	8102	8292	8482	8672
85	8862	9052	9242	9432	9622	9812	0002	0192	0382	0572
86	359 0762	0952	1142	1332	1522	1712	1902	2092	2282	2472
87	2662	2852	3041	3231	3421	3611	3801	3991	4181	4370
88	4560	4750	4940	5130	5319	5509	5699	5889	6078	6268
89	6458	6648	6837	7027	7217	7406	7596	7786	7976	8165
2290	8355	8544	8734	8924	9113	9303	9493	9682	9872	0061
91	360 0251	0440	0630	0820	1009	1199	1388	1578	1767	1957
92	2146	2336	2525	2715	2904	3093	3283	3472	3662	3851
93	4041	4230	4419	4609	4798	4987	5177	5366	5555	5745
94	5934	6123	6313	6502	6691	6881	7070	7259	7448	7638
95	7827	8016	8205	8395	8584	8773	8962	9151	9341	9530
96	9719	9908	0097	0286	0475	0664	0854	1043	1232	1421
97	361 1610	1799	1988	2177	2366	2555	2744	2933	3122	3311
98	3500	3689	3878	4067	4256	4445	4634	4823	5012	5201
99	5390	5579	5768	5956	6145	6334	6523	6712	6901	7090
2300	7278	7467	7656	7845	8034	8222	8411	8600	8789	8977

P. P.		
	193	192
1	19.3	19.2
2	38.6	38.4
3	57.9	57.6
4	77.2	76.8
5	96.5	96.0
6	115.8	115.2
7	135.1	134.4
8	154.4	153.6
9	173.7	172.8

P. P.		
	191	190
1	19.1	19.0
2	38.2	38.0
3	57.3	57.0
4	76.4	76.0
5	95.5	95.0
6	114.6	114.0
7	133.7	133.0
8	152.8	152.0
9	171.9	171.0

P. P.		
	189	188
1	18.9	18.8
2	37.8	37.6
3	56.7	56.4
4	75.6	75.2
5	94.5	94.0
6	113.4	112.8
7	132.3	131.6
8	151.2	150.4
9	170.1	169.2

N.	0	1	2	3	4	5	6	7	8	9
2300	361 7278	7467	7656	7845	8034	8222	8411	8600	8789	8977
01	9166	9355	9544	9732	9921	0110	0298	0487	0676	0865
02	362 1053	1242	1430	1619	1808	1996	2185	2374	2562	2751
03	2939	3128	3317	3505	3694	3882	4071	4259	4448	4636
04	4825	5013	5202	5390	5579	5767	5956	6144	6332	6521
05	6709	6898	7086	7275	7463	7651	7840	8028	8216	8405
06	8593	8781	8970	9158	9346	9535	9723	9911	0099	0288
07	363 0476	0664	0852	1041	1229	1417	1605	1794	1982	2170
08	2358	2546	2734	2923	3111	3299	3487	3675	3863	4051
09	4239	4427	4615	4804	4992	5180	5368	5556	5744	5932
2310	6120	6308	6496	6684	6872	7060	7248	7436	7624	7812
11	7999	8187	8375	8563	8751	8939	9127	9315	9503	9690
12	9878	0066	0254	0442	0630	0817	1005	1193	1381	1569
13	364 1756	1944	2132	2320	2507	2695	2883	3070	3258	3446
14	3634	3821	4009	4197	4384	4572	4759	4947	5135	5322
15	5510	5698	5885	6073	6260	6448	6635	6823	7010	7198
16	7386	7573	7761	7948	8136	8323	8511	8698	8885	9073
17	9260	9448	9635	9823	0010	0197	0385	0572	0760	0947
18	365 1134	1322	1509	1696	1884	2071	2258	2446	2633	2820
19	3007	3195	3382	3569	3757	3944	4131	4318	4505	4693
2320	4880	5067	5254	5441	5629	5816	6003	6190	6377	6564
21	6751	6939	7126	7313	7500	7687	7874	8061	8248	8435
22	8622	8809	8996	9183	9370	9557	9744	9931	0118	0305
23	366 0492	0679	0866	1053	1240	1427	1614	1801	1987	2174
24	2361	2548	2735	2922	3109	3296	3482	3669	3856	4043
25	4230	4416	4603	4790	4977	5163	5350	5537	5724	5910
26	6097	6284	6471	6657	6844	7031	7217	7404	7591	7777
27	7964	8150	8337	8524	8710	8897	9083	9270	9457	9643
28	9830	0016	0203	0389	0576	0762	0949	1135	1322	1508
29	367 1695	1881	2068	2254	2441	2627	2814	3000	3186	3373
2330	3559	3746	3932	4118	4305	4491	4677	4864	5050	5236
31	5423	5609	5795	5982	6168	6354	6540	6727	6913	7099
32	7285	7472	7658	7844	8030	8217	8403	8589	8775	8961
33	9147	9334	9520	9706	9892	0078	0264	0450	0636	0822
34	368 1009	1195	1381	1567	1753	1939	2125	2311	2497	2683
35	2869	3055	3241	3427	3613	3799	3985	4171	4357	4542
36	4728	4914	5100	5286	5472	5658	5844	6030	6215	6401
37	6587	6773	6959	7145	7330	7516	7702	7888	8074	8259
38	8445	8631	8817	9002	9188	9374	9559	9745	9931	0117
39	369 0302	0488	0674	0859	1045	1230	1416	1602	1787	1973
2340	2159	2344	2530	2715	2901	3086	3272	3458	3643	3829
41	4014	4200	4385	4571	4756	4942	5127	5313	5498	5683
42	5869	6054	6240	6425	6611	6796	6981	7167	7352	7538
43	7723	7908	8094	8279	8464	8650	8835	9020	9205	9391
44	9576	9761	9947	0132	0317	0502	0688	0873	1058	1243
45	370 1428	1614	1799	1984	2169	2354	2540	2725	2910	3095
46	3280	3465	3650	3835	4020	4206	4391	4576	4761	4946
47	5131	5316	5501	5686	5871	6056	6241	6426	6611	6796
48	6981	7166	7351	7536	7721	7906	8091	8275	8460	8645
49	8830	9015	9200	9385	9570	9754	9939	0124	0309	0494
2350	371 0679	0863	1048	1233	1418	1603	1787	1972	2157	2342

P. P.		
	189	188
1	18.9	18.8
2	37.8	37.6
3	56.7	56.4
4	75.6	75.2
5	94.5	94.0
6	113.4	112.8
7	132.3	131.6
8	151.2	150.4
9	170.1	169.2

P. P.		
	187	186
1	18.7	18.6
2	37.4	37.2
3	56.1	55.8
4	74.8	74.4
5	93.5	93.0
6	112.2	111.6
7	130.9	130.2
8	149.6	148.8
9	168.3	167.4

P. P.		
	185	184
1	18.5	18.4
2	37.0	36.8
3	55.5	55.2
4	74.0	73.6
5	92.5	92.0
6	111.0	110.4
7	129.5	128.8
8	148.0	147.2
9	166.5	165.6

N.	0	1	2	3	4	5	6	7	8	9
2350	371 0679	0863	1048	1233	1418	1603	1787	1972	2157	2342
51	2526	2711	2896	3080	3265	3450	3635	3819	4004	4189
52	4373	4558	4742	4927	5112	5296	5481	5666	5850	6035
53	6219	6404	6588	6773	6957	7142	7327	7511	7696	7880
54	8065	8249	8434	8618	8802	8987	9171	9356	9540	9725
55	9909	0094	0278	0462	0647	0831	1015	1200	1384	1569
56	372 1753	1937	2122	2306	2490	2674	2859	3043	3227	3412
57	3596	3780	3964	4149	4333	4517	4701	4885	5070	5254
58	5438	5622	5806	5991	6175	6359	6543	6727	6911	7095
59	7279	7464	7648	7832	8016	8200	8384	8568	8752	8936
2360	9120	9304	9488	9672	9856	0040	0224	0408	0592	0776
61	373 0960	1144	1328	1512	1696	1879	2063	2247	2431	2615
62	2799	2983	3167	3350	3534	3718	3902	4086	4270	4453
63	4637	4821	5005	5189	5372	5556	5740	5924	6107	6291
64	6475	6658	6842	7026	7210	7393	7577	7761	7944	8128
65	8311	8495	8679	8862	9046	9230	9413	9597	9780	9964
66	374 0147	0331	0515	0698	0882	1065	1249	1432	1616	1799
67	1983	2166	2350	2533	2716	2900	3083	3267	3450	3634
68	3817	4000	4184	4367	4551	4734	4917	5101	5284	5467
69	5651	5834	6017	6201	6384	6567	6750	6934	7117	7300
2370	7483	7667	7850	8033	8216	8400	8583	8766	8949	9132
71	9316	9499	9682	9865	0048	0231	0414	0598	0781	0964
72	375 1147	1330	1513	1696	1879	2062	2245	2428	2611	2794
73	2977	3160	3343	3526	3709	3892	4075	4258	4441	4624
74	4807	4990	5173	5356	5539	5722	5905	6088	6270	6453
75	6636	6819	7002	7185	7368	7550	7733	7916	8099	8282
76	8464	8647	8830	9013	9195	9378	9561	9744	9926	0109
77	376 0292	0475	0657	0840	1023	1205	1388	1571	1753	1936
78	2119	2301	2484	2666	2849	3032	3214	3397	3579	3762
79	3944	4127	4310	4492	4675	4857	5040	5222	5405	5587
2380	5770	5952	6135	6317	6499	6682	6864	7047	7229	7412
81	7594	7776	7959	8141	8323	8506	8688	8871	9053	9235
82	9418	9600	9782	9965	0147	0329	0511	0694	0876	1058
83	377 1240	1423	1605	1787	1969	2152	2334	2516	2698	2880
84	3063	3245	3427	3609	3791	3973	4155	4338	4520	4702
85	4884	5066	5248	5430	5612	5794	5976	6158	6340	6522
86	6704	6886	7068	7250	7432	7614	7796	7978	8160	8342
87	8524	8706	8888	9070	9252	9434	9616	9798	9979	0161
88	378 0343	0525	0707	0889	1071	1252	1434	1616	1798	1980
89	2161	2343	2525	2707	2889	3070	3252	3434	3616	3797
2390	3979	4161	4342	4524	4706	4887	5069	5251	5432	5614
91	5796	5977	6159	6341	6522	6704	6885	7067	7249	7430
92	7612	7793	7975	8156	8338	8519	8701	8882	9064	9245
93	9427	9608	9790	9971	0153	0334	0516	0697	0879	1060
94	379 1241	1423	1604	1786	1967	2148	2330	2511	2692	2874
95	3055	3237	3418	3599	3780	3962	4143	4324	4506	4687
96	4868	5049	5231	5412	5593	5774	5956	6137	6318	6499
97	6680	6862	7043	7224	7405	7586	7767	7948	8130	8311
98	8492	8673	8854	9035	9216	9397	9578	9759	9940	0121
99	380 0302	0484	0665	0846	1027	1208	1389	1570	1750	1931
2400	2112	2293	2474	2655	2836	3017	3198	3379	3560	3741

P. P.		
	185	184
1	18.5	18.4
2	37.0	36.8
3	55.5	55.2
4	74.0	73.6
5	92.5	92.0
6	111.0	110.4
7	129.5	128.8
8	148.0	147.2
9	166.5	165.6

P. P.		
	183	182
1	18.3	18.2
2	36.6	36.4
3	54.9	54.6
4	73.2	72.8
5	91.5	91.0
6	109.8	109.2
7	128.1	127.4
8	146.4	145.6
9	164.7	163.8

P. P.		
	181	180
1	18.1	18.0
2	36.2	36.0
3	54.3	54.0
4	72.4	72.0
5	90.5	90.0
6	108.6	108.0
7	126.7	126.0
8	144.8	144.0
9	162.9	162.0

N.	0	1	2	3	4	5	6	7	8	9	P. P.
2400	380 2112	2293	2474	2655	2836	3017	3198	3379	3560	3741	
01	3922	4102	4283	4464	4645	4826	5007	5188	5368	5549	181
02	5730	5911	6092	6272	6453	6634	6815	6995	7176	7357	1 18.1
03	7538	7718	7899	8080	8261	8441	8622	8803	8983	9164	2 36.2
04	9345	9525	9706	9887	0067	0248	0428	0609	0790	0970	3 54.3
05	381 1151	1331	1512	1693	1873	2054	2234	2415	2595	2776	4 72.4
06	2956	3137	3317	3498	3678	3859	4039	4220	4400	4580	5 90.5
07	4761	4941	5122	5302	5483	5663	5843	6024	6204	6384	6 108.6
08	6565	6745	6926	7106	7286	7467	7647	7827	8007	8188	7 126.7
09	8368	8548	8729	8909	9089	9269	9450	9630	9810	9990	8 144.8
2410	382 0170	0351	0531	0711	0891	1071	1252	1432	1612	1792	9 162.9
11	1972	2152	2332	2512	2693	2873	3053	3233	3413	3593	180
12	3773	3953	4133	4313	4493	4673	4853	5033	5213	5393	1 18.0
13	5573	5753	5933	6113	6293	6473	6653	6833	7013	7193	2 36.0
14	7373	7553	7732	7912	8092	8272	8452	8632	8812	8992	3 54.0
15	9171	9351	9531	9711	9891	0070	0250	0430	0610	0790	4 72.0
16	383 0969	1149	1329	1509	1688	1868	2048	2227	2407	2587	5 90.0
17	2767	2946	3126	3306	3485	3665	3844	4024	4204	4383	6 108.0
18	4563	4743	4922	5102	5281	5461	5640	5820	6000	6179	7 126.0
19	6359	6538	6718	6897	7077	7256	7436	7615	7795	7974	8 144.0
2420	8154	8333	8513	8692	8871	9051	9230	9410	9589	9769	9 162.0
21	9948	0127	0307	0486	0665	0845	1024	1203	1383	1562	179
22	384 1741	1921	2100	2279	2459	2638	2817	2996	3176	3355	1 17.9
23	3534	3713	3893	4072	4251	4430	4609	4789	4968	5147	2 35.8
24	5326	5505	5684	5864	6043	6222	6401	6580	6759	6938	3 53.7
25	7117	7297	7476	7655	7834	8013	8192	8371	8550	8729	4 71.6
26	8908	9087	9266	9445	9624	9803	9982	0161	0340	0519	5 89.5
27	385 0698	0877	1056	1235	1413	1592	1771	1950	2129	2308	6 107.4
28	2487	2666	2845	3023	3202	3381	3560	3739	3918	4096	7 125.3
29	4275	4454	4633	4812	4990	5169	5348	5527	5705	5884	8 143.2
2430	6063	6241	6420	6599	6778	6956	7135	7314	7492	7671	9 161.1
31	7850	8028	8207	8386	8564	8743	8921	9100	9279	9457	178
32	9636	9814	9993	0171	0350	0528	0707	0886	1064	1243	1 17.8
33	386 1421	1600	1778	1957	2135	2314	2492	2670	2849	3027	2 35.6
34	3206	3384	3563	3741	3919	4098	4276	4455	4633	4811	3 53.4
35	4990	5168	5346	5525	5703	5881	6060	6238	6416	6595	4 71.2
36	6773	6951	7129	7308	7486	7664	7842	8021	8199	8377	5 89.0
37	8555	8733	8912	9090	9268	9446	9624	9803	9981	0159	6 106.8
38	387 0337	0515	0693	0871	1049	1228	1406	1584	1762	1940	7 124.6
39	2118	2296	2474	2652	2830	3008	3186	3364	3542	3720	8 142.4
2440	3898	4076	4254	4432	4610	4788	4966	5144	5322	5500	9 160.2
41	5678	5856	6034	6212	6389	6567	6745	6923	7101	7279	177
42	7457	7634	7812	7990	8168	8346	8524	8701	8879	9057	1 17.7
43	9235	9412	9590	9768	9946	0123	0301	0479	0657	0834	2 35.4
44	388 1012	1190	1367	1545	1723	1900	2078	2256	2433	2611	3 53.1
45	2789	2966	3144	3321	3499	3677	3854	4032	4209	4387	4 70.8
46	4565	4742	4920	5097	5275	5452	5630	5807	5985	6162	5 88.5
47	6340	6517	6695	6872	7050	7227	7404	7582	7759	7937	6 106.2
48	8114	8292	8469	8646	8824	9001	9178	9356	9533	9711	7 123.9
49	9888	0065	0243	0420	0597	0774	0952	1129	1306	1484	8 141.6
2450	389 1661	1838	2015	2193	2370	2547	2724	2902	3079	3256	9 159.3
N.	0	1	2	3	4	5	6	7	8	9	P. P.

N.	0	1	2	3	4	5	6	7	8	9	P. P.
2450	389 1661	1838	2015	2193	2370	2547	2724	2902	3079	3256	
51	3433	3610	3787	3965	4142	4319	4496	4673	4850	5028	177
52	5205	5382	5559	5736	5913	6090	6267	6444	6621	6798	1 17.7
53	6975	7153	7330	7507	7684	7861	8038	8215	8392	8569	2 35.4
54	8746	8923	9100	9276	9453	9630	9807	9984	$\bar{0}161$	$\bar{0}338$	3 53.1
55	390 0515	0692	0869	1046	1223	1399	1576	1753	1930	2107	4 70.8
56	2284	2460	2637	2814	2991	3168	3344	3521	3698	3875	5 88.5
57	4052	4228	4405	4582	4759	4935	5112	5289	5465	5642	6 106.2
58	5819	5995	6172	6349	6525	6702	6879	7055	7232	7409	7 123.9
59	7585	7762	7939	8115	8292	8468	8645	8821	8998	9175	8 141.6
2460	9351	9528	9704	9881	$\bar{0}057$	$\bar{0}234$	$\bar{0}410$	$\bar{0}587$	$\bar{0}763$	$\bar{0}940$	9 159.3
61	391 1116	1293	1469	1646	1822	1998	2175	2351	2528	2704	176
62	2880	3057	3233	3410	3586	3762	3939	4115	4291	4468	1 17.6
63	4644	4820	4997	5173	5349	5526	5702	5878	6055	6231	2 35.2
64	6407	6583	6760	6936	7112	7288	7464	7641	7817	7993	3 52.8
65	8169	8345	8522	8698	8874	9050	9226	9402	9578	9755	4 70.4
66	9931	$\bar{0}107$	$\bar{0}283$	$\bar{0}459$	$\bar{0}635$	$\bar{0}811$	$\bar{0}987$	$\bar{1}163$	$\bar{1}339$	$\bar{1}515$	5 88.0
67	392 1691	1868	2044	2220	2396	2572	2748	2924	3100	3276	6 105.6
68	3452	3628	3803	3979	4155	4331	4507	4683	4859	5035	7 123.2
69	5211	5387	5563	5739	5914	6090	6266	6442	6618	6794	8 140.8
2470	6970	7145	7321	7497	7673	7849	8024	8200	8376	8552	9 158.4
71	8727	8903	9079	9255	9430	9606	9782	9958	$\bar{0}133$	$\bar{0}309$	175
72	393 0485	0660	0836	1012	1187	1363	1539	1714	1890	2066	1 17.5
73	2241	2417	2592	2768	2944	3119	3295	3470	3646	3821	2 35.0
74	3997	4172	4348	4524	4699	4875	5050	5226	5401	5577	3 52.5
75	5752	5928	6103	6278	6454	6629	6805	6980	7156	7331	4 70.0
76	7506	7682	7857	8033	8208	8383	8559	8734	8909	9085	5 87.5
77	9260	9435	9611	9786	9961	$\bar{0}137$	$\bar{0}312$	$\bar{0}487$	$\bar{0}662$	$\bar{0}838$	6 105.0
78	394 1013	1188	1364	1539	1714	1889	2064	2240	2415	2590	7 122.5
79	2765	2940	3116	3291	3466	3641	3816	3991	4167	4342	8 140.0
2480	4517	4692	4867	5042	5217	5392	5567	5742	5918	6093	9 157.5
81	6268	6443	6618	6793	6968	7143	7318	7493	7668	7843	174
82	8018	8193	8368	8543	8718	8893	9068	9242	9417	9592	1 17.4
83	9767	9942	$\bar{0}117$	$\bar{0}292$	$\bar{0}467$	$\bar{0}642$	$\bar{0}817$	$\bar{0}991$	$\bar{1}166$	$\bar{1}341$	2 34.8
84	395 1516	1691	1866	2040	2215	2390	2565	2740	2914	3089	3 52.2
85	3264	3439	3613	3788	3963	4138	4312	4487	4662	4837	4 69.6
86	5011	5186	5361	5535	5710	5885	6059	6234	6409	6583	5 87.0
87	6758	6932	7107	7282	7456	7631	7805	7980	8155	8329	6 104.4
88	8504	8678	8853	9027	9202	9376	9551	9725	9900	$\bar{0}074$	7 121.8
89	396 0249	0423	0598	0772	0947	1121	1296	1470	1645	1819	8 139.2
2490	1993	2168	2342	2517	2691	2865	3040	3214	3389	3563	9 156.6
91	3737	3912	4086	4260	4435	4609	4783	4958	5132	5306	173
92	5480	5655	5829	6003	6177	6352	6526	6700	6874	7049	1 17.3
93	7223	7397	7571	7745	7920	8094	8268	8442	8616	8790	2 34.6
94	8964	9139	9313	9487	9661	9835	$\bar{0}009$	$\bar{0}183$	$\bar{0}357$	$\bar{0}531$	3 51.9
95	397 0705	0880	1054	1228	1402	1576	1750	1924	2098	2272	4 69.2
96	2446	2620	2794	2968	3142	3316	3490	3664	3838	4011	5 86.5
97	4185	4359	4533	4707	4881	5055	5229	5403	5577	5750	6 103.8
98	5924	6098	6272	6446	6620	6794	6967	7141	7315	7489	7 121.1
99	7663	7836	8010	8184	8358	8531	8705	8879	9053	9226	8 138.4
2500	9400	9574	9748	9921	$\bar{0}095$	$\bar{0}269$	$\bar{0}442$	$\bar{0}616$	$\bar{0}790$	$\bar{0}963$	9 155.7
N.	0	1	2	3	4	5	6	7	8	9	P. P.

N.	0	1	2	3	4	5	6	7	8	9	P. P.
2500	397 9400	9574	9748	9921	ō095	ō269	ō442	ō616	ō790	ō963	
01	398 1137	1311	1484	1658	1831	2005	2179	2352	2526	2699	174
02	2873	3047	3220	3394	3567	3741	3914	4088	4261	4435	1 17.4
03	4608	4782	4956	5129	5302	5476	5649	5823	5996	6170	2 34.8
04	6343	6517	6690	6864	7037	7210	7384	7557	7731	7904	3 52.2
05	8077	8251	8424	8597	8771	8944	9117	9291	9464	9637	4 69.6
06	9811	9984	ō157	ō331	ō504	ō677	ō850	ī024	ī197	ī370	5 87.0
07	399 1543	1717	1890	2063	2236	2409	2583	2756	2929	3102	6 104.4
08	3275	3448	3622	3795	3968	4141	4314	4487	4660	4834	7 121.8
09	5007	5180	5353	5526	5699	5872	6045	6218	6391	6564	8 139.2
2510	6737	6910	7083	7256	7429	7602	7775	7948	8121	8294	9 156.6
11	8467	8640	8813	8986	9159	9332	9505	9678	9851	ō023	173
12	400 0196	0369	0542	0715	0888	1061	1234	1406	1579	1752	1 17.3
13	1925	2098	2271	2443	2616	2789	2962	3134	3307	3480	2 34.6
14	3653	3825	3998	4171	4344	4516	4689	4862	5035	5207	3 51.9
15	5380	5553	5725	5898	6071	6243	6416	6588	6761	6934	4 69.2
16	7106	7279	7452	7624	7797	7969	8142	8314	8487	8660	5 86.5
17	8832	9005	9177	9350	9522	9695	9867	ō040	ō212	ō385	6 103.8
18	401 0557	0730	0902	1075	1247	1420	1592	1764	1937	2109	7 121.1
19	2282	2454	2626	2799	2971	3144	3316	3488	3661	3833	8 138.4
2520	4005	4178	4350	4522	4695	4867	5039	5212	5384	5556	9 155.7
21	5728	5901	6073	6245	6417	6590	6762	6934	7106	7279	172
22	7451	7623	7795	7967	8140	8312	8484	8656	8828	9000	1 17.2
23	9173	9345	9517	9689	9861	ō033	ō205	ō377	ō549	ō721	2 34.4
24	402 0894	1066	1238	1410	1582	1754	1926	2098	2270	2442	3 51.6
25	2614	2786	2958	3130	3302	3474	3646	3818	3990	4162	4 68.8
26	4333	4505	4677	4849	5021	5193	5365	5537	5709	5881	5 86.0
27	6052	6224	6396	6568	6740	6912	7083	7255	7427	7599	6 103.2
28	7771	7942	8114	8286	8458	8630	8801	8973	9145	9317	7 120.4
29	9488	9660	9832	ō003	ō175	ō347	ō519	ō690	ō862	ī034	8 137.6
2530	403 1205	1377	1549	1720	1892	2063	2235	2407	2578	2750	9 154.8
31	2921	3093	3265	3436	3608	3779	3951	4122	4294	4465	171
32	4637	4809	4980	5152	5323	5495	5666	5838	6009	6180	1 17.1
33	6352	6523	6695	6866	7038	7209	7381	7552	7723	7895	2 34.2
34	8066	8237	8409	8580	8752	8923	9094	9266	9437	9608	3 51.3
35	9780	9951	ō122	ō294	ō465	ō636	ō807	ō979	ī150	ī321	4 68.4
36	404 1492	1664	1835	2006	2177	2349	2520	2691	2862	3033	5 85.5
37	3205	3376	3547	3718	3889	4061	4232	4403	4574	4745	6 102.6
38	4916	5087	5258	5429	5601	5772	5943	6114	6285	6456	7 119.7
39	6627	6798	6969	7140	7311	7482	7653	7824	7995	8166	8 136.8
2540	8337	8508	8679	8850	9021	9192	9363	9534	9705	9876	9 153.9
41	405 0047	0218	0388	0559	0730	0901	1072	1243	1414	1585	170
42	1755	1926	2097	2268	2439	2610	2780	2951	3122	3293	1 17.0
43	3464	3634	3805	3976	4147	4317	4488	4659	4830	5000	2 34.0
44	5171	5342	5512	5683	5854	6025	6195	6366	6537	6707	3 51.0
45	6878	7049	7219	7390	7560	7731	7902	8072	8243	8413	4 68.0
46	8584	8755	8925	9096	9266	9437	9607	9778	9948	ō119	5 85.0
47	406 0289	0460	0630	0801	0971	1142	1312	1483	1653	1824	6 102.0
48	1994	2165	2335	2506	2676	2846	3017	3187	3358	3528	7 119.0
49	3698	3869	4039	4209	4380	4550	4721	4891	5061	5231	8 136.0
2550	5402	5572	5742	5913	6083	6253	6424	6594	6764	6934	9 153.0
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2550	406 5402	5572	5742	5913	6083	6253	6424	6594	6764	6934	
51	7105̄	7275̄	7445	7615	7786	7956	8126	8296	8466	8637	171
52	8807	8977	9147	9317	9487	9658	9828	9998	0̄168	0̄338	1 17.1
53	407 0508	0678	0848	1018	1189	1359	1529	1699	1869	2039	2 34.2
54	2209	2379	2549	2719	2889	3059	3229	3399	3569	3739	3 51.3
55	3909	4079	4249	4419	4589	4759	4929	5099	5269	5439	4 68.4
56	5608	5778	5948	6118	6288	6458	6628	6798	6968	7137	5 85.5
57	7307	7477	7647	7817	7987	8156	8326	8496	8666	8836	6 102.6
58	9005	9175	9345̄	9515̄	9684	9854	0̄024	0̄194	0̄363	0̄533	7 119.7
59	408 0703	0873	1042	1212	1382	1551	1721	1891	2060	2230	8 136.8
2560	2400	2569	2739	2909	3078	3248	3417	3587	3757	3926	9 153.9
61	4096	4265	4435̄	4604	4774	4944	5113	5283	5452	5622	170
62	5791	5961	6130	6300	6469	6639	6808	6978	7147	7317	1 17.0
63	7486	7656	7825̄	7994	8164	8333	8503	8672	8841	9011	2 34.0
64	9180	9350	9519	9688	9858	0̄027	0̄196	0̄366	0̄535	0̄704	3 51.0
65	409 0874	1043	1212	1382	1551	1720	1889	2059	2228	2397	4 68.0
66	2567	2736	2905	3074	3243	3413	3582	3751	3920	4089	5 85.0
67	4259	4428	4597	4766	4935	5105̄	5274	5443	5612	5781	6 102.0
68	5950	6119	6288	6458	6627	6796	6965̄	7134	7303	7472	7 119.0
69	7641	7810	7979	8148	8317	8486	8655	8824	8993	9162	8 136.0
2570	9331	9500	9669	9838	0̄007	0̄176	0̄345	0̄514	0̄683	0̄852	9 153.0
71	410 1021	1190	1359	1527	1696	1865	2034	2203	2372	2541	169
72	2710	2878	3047	3216	3385	3554	3723	3891	4060	4229	1 16.9
73	4398	4567	4735	4904	5073	5242	5410	5579	5748	5917	2 33.8
74	6085	6254	6423	6592	6760	6929	7098	7266	7435	7604	3 50.7
75	7772	7941	8110	8278	8447	8616	8784	8953	9121	9290	4 67.6
76	9459	9627	9796	9964	0̄133	0̄301	0̄470	0̄639	0̄807	0̄976	5 84.5
77	411 1144	1313	1481	1650	1818	1987	2155	2324	2492	2661	6 101.4
78	2829	2998	3166	3334	3503	3671	3840	4008	4177	4345	7 118.3
79	4513	4682	4850	5019	5187	5355	5524	5692	5860	6029	8 135.2
2580	6197	6365	6534	6702	6870	7039	7207	7375	7544	7712	9 152.1
81	7880	8048	8217	8385̄	8553	8721	8890	9058	9226	9394	168
82	9562	9731	9899	0̄067	0̄235	0̄403	0̄571	0̄740	0̄908	1̄076	1 16.8
83	412 1244	1412	1580	1748	1917	2085̄	2253	2421	2589	2757	2 33.6
84	2925	3093	3261	3429	3597	3765	3933	4101	4269	4437	3 50.4
85	4605	4773	4941	5109	5277	5445	5613	5781	5949	6117	4 67.2
86	6285	6453	6621	6789	6957	7125̄	7293	7461	7629	7796	5 84.0
87	7964	8132	8300	8468	8636	8804	8971	9139	9307	9475̄	6 100.8
88	9643	9811	9978	0̄146	0̄314	0̄482	0̄649	0̄817	0̄985̄	1̄153	7 117.6
89	413 1321	1488	1656	1824	1991	2159	2327	2495̄	2662	2830	8 134.4
2590	2998	3165	3333	3501	3668	3836	4004	4171	4339	4507	9 151.2
91	4674	4842	5009	5177	5345̄	5512	5680	5847	6015̄	6182	167
92	6350	6518	6685	6853	7020	7188	7355	7523	7690	7858	1 16.7
93	8025	8193	8360	8528	8695	8863	9030	9197	9365̄	9532	2 33.4
94	9700	9867	0̄035̄	0̄202	0̄369	0̄537	0̄704	0̄872	1̄039	1̄206	3 50.1
95	414 1374	1541	1708	1876	2043	2210	2378	2545̄	2712	2880	4 66.8
96	3047	3214	3381	3549	3716	3883	4051	4218	4385	4552	5 83.5
97	4719	4887	5054	5221	5388	5556	5723	5890	6057	6224	6 100.2
98	6391	6559	6726	6893	7060	7227	7394	7561	7729	7896	7 116.9
99	8063	8230	8397	8564	8731	8898	9065	9232	9399	9566	8 133.6
2600	9733	9901	0̄068	0̄235̄	0̄402	0̄569	0̄736	0̄903	1̄070	1̄237	9 150.3
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2600	414 9733	9901	0068	0235	0402	0569	0736	0903	1070	1237	
01	415 1404	1570	1737	1904	2071	2238	2405	2572	2739	2906	168
02	3073	3240	3407	3574	3741	3907	4074	4241	4408	4575	1 16.8
03	4742	4909	5075	5242	5409	5576	5743	5909	6076	6243	2 33.6
04	6410	6577	6743	6910	7077	7244	7410	7577	7744	7911	3 50.4
05	8077	8244	8411	8577	8744	8911	9077	9244	9411	9577	4 67.2
06	9744	9911	0077	0244	0411	0577	0744	0911	1077	1244	5 84.0
07	416 1410	1577	1743	1910	2077	2243	2410	2576	2743	2909	6 100.8
08	3076	3242	3409	3575	3742	3908	4075	4241	4408	4574	7 117.6
09	4741	4907	5074	5240	5407	5573	5739	5906	6072	6239	8 134.4
2610	6405	6571	6738	6904	7071	7237	7403	7570	7736	7902	9 151.2
11	8069	8235	8401	8568	8734	8900	9067	9233	9399	9565	167
12	9732	9898	0064	0231	0397	0563	0729	0895	1062	1228	1 16.7
13	417 1394	1560	1726	1893	2059	2225	2391	2557	2724	2890	2 33.4
14	3056	3222	3388	3554	3720	3886	4053	4219	4385	4551	3 50.1
15	4717	4883	5049	5215	5381	5547	5713	5879	6045	6211	4 66.8
16	6377	6543	6709	6875	7041	7207	7373	7539	7705	7871	5 83.5
17	8037	8203	8369	8535	8701	8867	9033	9199	9365	9531	6 100.2
18	9696	9862	0028	0194	0360	0526	0692	0857	1023	1189	7 116.9
19	418 1355	1521	1687	1852	2018	2184	2350	2516	2681	2847	8 133.6
2620	3013	3179	3344	3510	3676	3842	4007	4173	4339	4505	9 150.3
21	4670	4836	5002	5167	5333	5499	5664	5830	5996	6161	166
22	6327	6493	6658	6824	6989	7155	7321	7486	7652	7817	1 16.6
23	7983	8148	8314	8480	8645	8811	8976	9142	9307	9473	2 33.2
24	9638	9804	9969	0135	0300	0466	0631	0797	0962	1128	3 49.8
25	419 1293	1459	1624	1789	1955	2120	2286	2451	2616	2782	4 66.4
26	2947	3113	3278	3443	3609	3774	3939	4105	4270	4435	5 83.0
27	4601	4766	4931	5097	5262	5427	5593	5758	5923	6088	6 99.6
28	6254	6419	6584	6749	6915	7080	7245	7410	7575	7741	7 116.2
29	7906	8071	8236	8401	8567	8732	8897	9062	9227	9392	8 132.8
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31	420 1208	1374	1539	1704	1869	2034	2199	2364	2529	2694	165
32	2859	3024	3189	3354	3519	3684	3849	4014	4179	4344	1 16.5
33	4509	4674	4838	5003	5168	5333	5498	5663	5828	5993	2 33.0
34	6158	6323	6487	6652	6817	6982	7147	7312	7477	7641	3 49.5
35	7806	7971	8136	8301	8465	8630	8795	8960	9125	9289	4 66.0
36	9454	9619	9784	9948	0113	0278	0442	0607	0772	0937	5 82.5
37	421 1101	1266	1431	1595	1760	1925	2089	2254	2419	2583	6 99.0
38	2748	2913	3077	3242	3406	3571	3736	3900	4065	4229	7 115.5
39	4394	4558	4723	4888	5052	5217	5381	5546	5710	5875	8 132.0
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41	7684	7848	8013	8177	8342	8506	8671	8835	8999	9164	164
42	9328	9493	9657	9821	9986	0150	0314	0479	0643	0807	1 16.4
43	422 0972	1136	1300	1465	1629	1793	1957	2122	2286	2450	2 32.8
44	2615	2779	2943	3107	3271	3436	3600	3764	3928	4093	3 49.2
45	4257	4421	4585	4749	4913	5078	5242	5406	5570	5734	4 65.6
46	5898	6063	6227	6391	6555	6719	6883	7047	7211	7375	5 82.0
47	7539	7703	7868	8032	8196	8360	8524	8688	8852	9016	6 98.4
48	9180	9344	9508	9672	9836	0000	0164	0328	0492	0656	7 114.8
49	423 0820	0984	1147	1311	1475	1639	1803	1967	2131	2295	8 131.2
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52	5735	5899	6063	6226	6390	6554	6718	6881	7045	7209	1 16.4
53	7372	7536	7700	7864	8027	8191	8355	8518	8682	8846	2 32.8
54	9009	9173	9336	9500	9664	9827	9991	ō154	ō318	ō482	3 49.2
55	424 0645	0809	0972	1136	1300	1463	1627	1790	1954	2117	4 65.6
56	2281	2444	2608	2771	2935	3098	3262	3425	3589	3752	5 82.0
57	3916	4079	4242	4406	4569	4733	4896	5060	5223	5386	6 98.4
58	5550	5713	5877	6040	6203	6367	6530	6693	6857	7020	7 114.8
59	7183	7347	7510	7673	7837	8000	8163	8327	8490	8653	8 131.2
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61	425 0449	0612	0775	0938	1102	1265	1428	1591	1754	1917	163
62	2081	2244	2407	2570	2733	2896	3059	3222	3385	3549	1 16.3
63	3712	3875	4038	4201	4364	4527	4690	4853	5016	5179	2 32.6
64	5342	5505	5668	5831	5994	6157	6320	6483	6646	6809	3 48.9
65	6972	7135	7298	7461	7624	7787	7950	8113	8276	8439	4 65.2
66	8601	8764	8927	9090	9253	9416	9579	9742	9904	ō067	5 81.5
67	426 0230	0393	0556	0719	0881	1044	1207	1370	1533	1695	6 97.8
68	1858	2021	2184	2347	2509	2672	2835	2998	3160	3323	7 114.1
69	3486	3648	3811	3974	4137	4299	4462	4625	4787	4950	8 130.4
2670	5113	5275	5438	5601	5763	5926	6088	6251	6414	6576	9 146.7
71	6739	6901	7064	7227	7389	7552	7714	7877	8039	8202	162
72	8365	8527	8690	8852	9015	9177	9340	9502	9665	9827	1 16.2
73	9990	ō152	ō315	ō477	ō639	ō802	ō964	1127	1289	1452	2 32.4
74	427 1614	1776	1939	2101	2264	2426	2588	2751	2913	3076	3 48.6
75	3238	3400	3563	3725	3887	4050	4212	4374	4536	4699	4 64.8
76	4861	5023	5186	5348	5510	5672	5835	5997	6159	6321	5 81.0
77	6484	6646	6808	6970	7133	7295	7457	7619	7781	7944	6 97.2
78	8106	8268	8430	8592	8754	8917	9079	9241	9403	9565	7 113.4
79	9727	9889	ō051	ō213	ō376	ō538	ō700	ō862	1024	1186	8 129.6
2680	428 1348	1510	1672	1834	1996	2158	2320	2482	2644	2806	9 145.8
81	2968	3130	3292	3454	3616	3778	3940	4102	4264	4426	161
82	4588	4750	4912	5073	5235	5397	5559	5721	5883	6045	1 16.1
83	6207	6369	6530	6692	6854	7016	7178	7340	7501	7663	2 32.2
84	7825	7987	8149	8311	8472	8634	8796	8958	9119	9281	3 48.3
85	9443	9605	9766	9928	ō090	ō252	ō413	ō575	ō737	ō898	4 64.4
86	429 1060	1222	1383	1545	1707	1868	2030	2192	2353	2515	5 80.5
87	2677	2838	3000	3162	3323	3485	3646	3808	3969	4131	6 96.6
88	4293	4454	4616	4777	4939	5100	5262	5423	5585	5747	7 112.7
89	5908	6070	6231	6393	6554	6715	6877	7038	7200	7361	8 128.8
2690	7523	7684	7846	8007	8169	8330	8491	8653	8814	8976	9 144.9
91	9137	9298	9460	9621	9782	9944	ō105	ō267	ō428	ō589	160
92	430 0751	0912	1073	1235	1396	1557	1718	1880	2041	2202	1 16.0
93	2364	2525	2686	2847	3009	3170	3331	3492	3653	3815	2 32.0
94	3976	4137	4298	4460	4621	4782	4943	5104	5265	5427	3 48.0
95	5588	5749	5910	6071	6232	6393	6554	6716	6877	7038	4 64.0
96	7199	7360	7521	7682	7843	8004	8165	8326	8487	8648	5 80.0
97	8809	8970	9132	9293	9454	9615	9776	9937	ō098	ō258	6 96.0
98	431 0419	0580	0741	0902	1063	1224	1385	1546	1707	1868	7 112.0
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02	6853	7014	7175	7336	7496	7657	7818	7978	8139	8300	
03	8460	8621	8782	8942	9103	9264	9424	9585	9746	9906	
04	432 0067	0227	0388	0549	0709	0870	1030	1191	1352	1512	161
05	1673	1833	1994	2154	2315	2475	2636	2796	2957	3117	1 16.1
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07	4883	5043	5203	5364	5524	5685	5845	6005	6166	6326	3 48.3
08	6487	6647	6807	6968	7128	7288	7449	7609	7769	7930	4 64.4
09	8090	8250	8411	8571	8731	8892	9052	9212	9372	9533	5 80.5
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11	433 1295	1455	1616	1776	1936	2096	2256	2416	2577	2737	7 112.7
12	2897	3057	3217	3377	3537	3697	3858	4018	4178	4338	8 128.8
13	4498	4658	4818	4978	5138	5298	5458	5618	5778	5938	9 144.9
14	6098	6258	6418	6578	6738	6898	7058	7218	7378	7538	
15	7698	7858	8018	8178	8338	8498	8658	8818	8978	9138	
16	9298	9458	9617	9777	9937	0097	0257	0417	0577	0737	160
17	434 0896	1056	1216	1376	1536	1696	1855	2015	2175	2335	1 16.0
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19	4092	4252	4412	4571	4731	4891	5050	5210	5370	5529	3 48.0
2720	5689	5849	6008	6168	6328	6487	6647	6807	6966	7126	4 64.0
21	7285	7445	7605	7764	7924	8083	8243	8403	8562	8722	5 80.0
22	8881	9041	9200	9360	9519	9679	9838	9998	0157	0317	6 96.0
23	435 0476	0636	0795	0955	1114	1274	1433	1593	1752	1912	7 112.0
24	2071	2230	2390	2549	2709	2868	3028	3187	3346	3506	8 128.0
25	3665	3824	3984	4143	4303	4462	4621	4781	4940	5099	9 144.0
26	5259	5418	5577	5736	5896	6055	6214	6374	6533	6692	
27	6851	7011	7170	7329	7488	7648	7807	7966	8125	8284	
28	8444	8603	8762	8921	9080	9240	9399	9558	9717	9876	159
29	436 0035	0194	0354	0513	0672	0831	0990	1149	1308	1467	1 15.9
2730	1626	1786	1945	2104	2263	2422	2581	2740	2899	3058	2 31.8
31	3217	3376	3535	3694	3853	4012	4171	4330	4489	4648	3 47.7
32	4807	4966	5125	5284	5443	5602	5761	5920	6078	6237	4 63.6
33	6396	6555	6714	6873	7032	7191	7350	7509	7667	7826	5 79.5
34	7985	8144	8303	8462	8620	8779	8938	9097	9256	9415	6 95.4
35	9573	9732	9891	0050	0208	0367	0526	0685	0843	1002	7 111.3
36	437 1161	1320	1478	1637	1796	1955	2113	2272	2431	2589	8 127.2
37	2748	2907	3065	3224	3383	3541	3700	3859	4017	4176	9 143.1
38	4334	4493	4652	4810	4969	5127	5286	5445	5603	5762	
39	5920	6079	6237	6396	6555	6713	6872	7030	7189	7347	
2740	7506	7664	7823	7981	8140	8298	8457	8615	8773	8932	158
41	9090	9249	9407	9566	9724	9883	0041	0199	0358	0516	1 15.8
42	438 0675	0833	0991	1150	1308	1466	1625	1783	1941	2100	2 31.6
43	2258	2416	2575	2733	2891	3050	3208	3366	3525	3683	3 47.4
44	3841	3999	4158	4316	4474	4632	4791	4949	5107	5265	4 63.2
45	5423	5582	5740	5898	6056	6214	6373	6531	6689	6847	5 79.0
46	7005	7163	7322	7480	7638	7796	7954	8112	8270	8428	6 94.8
47	8587	8745	8903	9061	9219	9377	9535	9693	9851	0009	7 110.6
48	439 0167	0325	0483	0641	0799	0957	1115	1273	1431	1589	8 126.4
49	1747	1905	2063	2221	2379	2537	2695	2853	3011	3169	9 142.2
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2750	439 3327	3485	3643	3801	3959	4116	4274	4432	4590	4748	
51	4906	5064	5222	5379	5537	5695	5853	6011	6169	6326	
52	6484	6642	6800	6958	7115	7273	7431	7589	7747	7904	
53	8062	8220	8378	8535	8693	8851	9009	9166	9324	9482	
54	9639	9797	9955	0112	0270	0428	0585	0743	0901	1058	158
55	440 1216	1374	1531	1689	1847	2004	2162	2319	2477	2635	1 15.8
56	2792	2950	3107	3265	3422	3580	3738	3895	4053	4210	2 31.6
57	4368	4525	4683	4840	4998	5155	5313	5470	5628	5785	3 47.4
58	5943	6100	6258	6415	6572	6730	6887	7045	7202	7360	4 63.2
59	7517	7674	7832	7989	8147	8304	8461	8619	8776	8933	5 79.0
2760	9091	9248	9406	9563	9720	9878	0035	0192	0349	0507	6 94.8
61	441 0664	0821	0979	1136	1293	1450	1608	1765	1922	2080	7 110.6
62	2237	2394	2551	2708	2866	3023	3180	3337	3494	3652	8 126.4
63	3809	3966	4123	4280	4438	4595	4752	4909	5066	5223	9 142.2
64	5380	5538	5695	5852	6009	6166	6323	6480	6637	6794	
65	6951	7108	7265	7423	7580	7737	7894	8051	8208	8365	
66	8522	8679	8836	8993	9150	9307	9464	9621	9778	9935	157
67	442 0092	0249	0405	0562	0719	0876	1033	1190	1347	1504	1 15.7
68	1661	1818	1975	2132	2288	2445	2602	2759	2916	3073	2 31.4
69	3230	3386	3543	3700	3857	4014	4171	4327	4484	4641	3 47.1
2770	4798	4954	5111	5268	5425	5582	5738	5895	6052	6209	4 62.8
71	6365	6522	6679	6835	6992	7149	7306	7462	7619	7776	5 78.5
72	7932	8089	8246	8402	8559	8716	8872	9029	9185	9342	6 94.2
73	9499	9655	9812	9969	0125	0282	0438	0595	0751	0908	7 109.9
74	443 1065	1221	1378	1534	1691	1847	2004	2160	2317	2473	8 125.6
75	2630	2786	2943	3099	3256	3412	3569	3725	3882	4038	9 141.3
76	4195	4351	4507	4664	4820	4977	5133	5290	5446	5602	
77	5759	5915	6072	6228	6384	6541	6697	6853	7010	7166	
78	7322	7479	7635	7791	7948	8104	8260	8417	8573	8729	156
79	8885	9042	9198	9354	9511	9667	9823	9979	0136	0292	1 15.6
2780	444 0448	0604	0760	0917	1073	1229	1385	1541	1698	1854	2 31.2
81	2010	2166	2322	2478	2635	2791	2947	3103	3259	3415	3 46.8
82	3571	3727	3883	4040	4196	4352	4508	4664	4820	4976	4 62.4
83	5132	5288	5444	5600	5756	5912	6068	6224	6380	6536	5 78.0
84	6692	6848	7004	7160	7316	7472	7628	7784	7940	8096	6 93.6
85	8252	8408	8564	8720	8876	9032	9188	9343	9499	9655	7 109.2
86	9811	9967	0123	0279	0435	0590	0746	0902	1058	1214	8 124.8
87	445 1370	1526	1681	1837	1993	2149	2305	2460	2616	2772	9 140.4
88	2928	3083	3239	3395	3551	3706	3862	4018	4174	4329	
89	4485	4641	4797	4952	5108	5264	5419	5575	5731	5886	
2790	6042	6198	6353	6509	6665	6820	6976	7132	7287	7443	155
91	7598	7754	7910	8065	8221	8376	8532	8687	8843	8999	1 15.5
92	9154	9310	9465	9621	9776	9932	0087	0243	0398	0554	2 31.0
93	446 0709	0865	1020	1176	1331	1487	1642	1798	1953	2109	3 46.5
94	2264	2419	2575	2730	2886	3041	3197	3352	3507	3663	4 62.0
95	3818	3974	4129	4284	4440	4595	4750	4906	5061	5216	5 77.5
96	5372	5527	5682	5838	5993	6148	6304	6459	6614	6769	6 93.0
97	6925	7080	7235	7390	7546	7701	7856	8011	8167	8322	7 108.5
98	8477	8632	8788	8943	9098	9253	9408	9563	9719	9874	8 124.0
99	447 0029	0184	0339	0494	0650	0805	0960	1115	1270	1425	9 139.5
2800	1580	1735	1891	2046	2201	2356	2511	2666	2821	2976	
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01	3131	3286	3441	3596	3751	3906	4061	4216	4371	4526	
02	4681	4836	4991	5146	5301	5456	5611	5766	5921	6076	
03	6231	6386	6541	6696	6851	7006	7161	7315	7470	7625	
04	7780	7935	8090	8245	8400	8554	8709	8864	9019	9174	156
05	9329	9483	9638	9793	9948	$\bar{0}103$	$\bar{0}258$	$\bar{0}412$	$\bar{0}567$	$\bar{0}722$	1 15.6
06	448 0877	1031	1186	1341	1496	1650	1805	1960	2115	2269	2 31.2
07	2424	2579	2734	2888	3043	3198	3352	3507	3662	3816	3 46.8
08	3971	4126	4280	4435	4590	4744	4899	5054	5208	5363	4 62.4
09	5517	5672	5827	5981	6136	6290	6445	6600	6754	6909	5 78.0
2810	7063	7218	7372	7527	7681	7836	7990	8145	8299	8454	6 93.6
11	8608	8763	8917	9072	9226	9381	9535	9690	9844	9999	7 109.2
12	449 0153	0308	0462	0616	0771	0925	1080	1234	1389	1543	8 124.8
13	1697	1852	2006	2160	2315	2469	2624	2778	2932	3087	9 140.4
14	3241	3395	3550	3704	3858	4013	4167	4321	4475	4630	
15	4784	4938	5093	5247	5401	5555	5710	5864	6018	6172	
16	6327	6481	6635	6789	6943	7098	7252	7406	7560	7714	155
17	7868	8023	8177	8331	8485	8639	8793	8948	9102	9256	1 15.5
18	9410	9564	9718	9872	$\bar{0}026$	$\bar{0}180$	$\bar{0}334$	$\bar{0}489$	$\bar{0}643$	$\bar{0}797$	2 31.0
19	450 0951	1105	1259	1413	1567	1721	1875	2029	2183	2337	3 46.5
2820	2491	2645	2799	2953	3107	3261	3415	3569	3723	3877	4 62.0
21	4031	4185	4339	4493	4647	4801	4954	5108	5262	5416	5 77.5
22	5570	5724	5878	6032	6186	6340	6493	6647	6801	6955	6 93.0
23	7109	7263	7416	7570	7724	7878	8032	8186	8339	8493	7 108.5
24	8647	8801	8954	9108	9262	9416	9570	9723	9877	$\bar{0}031$	8 124.0
25	451 0185	0338	0492	0646	0799	0953	1107	1261	1414	1568	9 139.5
26	1722	1875	2029	2183	2336	2490	2644	2797	2951	3104	
27	3258	3412	3565	3719	3873	4026	4180	4333	4487	4640	
28	4794	4948	5101	5255	5408	5562	5715	5869	6022	6176	154
29	6329	6483	6636	6790	6943	7097	7250	7404	7557	7711	1 15.4
2830	7864	8018	8171	8325	8478	8632	8785	8938	9092	9245	2 30.8
31	9399	9552	9705	9859	$\bar{0}012$	$\bar{0}166$	$\bar{0}319$	$\bar{0}472$	$\bar{0}626$	$\bar{0}779$	3 46.2
32	452 0932	1086	1239	1393	1546	1699	1853	2006	2159	2312	4 61.6
33	2466	2619	2772	2926	3079	3232	3385	3539	3692	3845	5 77.0
34	3998	4152	4305	4458	4611	4765	4918	5071	5224	5377	6 92.4
35	5531	5684	5837	5990	6143	6297	6450	6603	6756	6909	7 107.8
36	7062	7215	7369	7522	7675	7828	7981	8134	8287	8440	8 123.2
37	8593	8746	8900	9053	9206	9359	9512	9665	9818	9971	9 138.6
38	453 0124	0277	0430	0583	0736	0889	1042	1195	1348	1501	
39	1654	1807	1960	2113	2266	2419	2572	2725	2878	3030	
2840	3183	3336	3489	3642	3795	3948	4101	4254	4407	4559	153
41	4712	4865	5018	5171	5324	5477	5629	5782	5935	6088	1 15.3
42	6241	6394	6546	6699	6852	7005	7158	7310	7463	7616	2 30.6
43	7769	7921	8074	8227	8380	8532	8685	8838	8990	9143	3 45.9
44	9296	9449	9601	9754	9907	$\bar{0}059$	$\bar{0}212$	$\bar{0}365$	$\bar{0}517$	$\bar{0}670$	4 61.2
45	454 0823	0975	1128	1281	1433	1586	1739	1891	2044	2196	5 76.5
46	2349	2502	2654	2807	2959	3112	3264	3417	3570	3722	6 91.8
47	3875	4027	4180	4332	4485	4637	4790	4942	5095	5247	7 107.1
48	5400	5552	5705	5857	6010	6162	6315	6467	6620	6772	8 122.4
49	6924	7077	7229	7382	7534	7687	7839	7991	8144	8296	9 137.7
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52	455 1495	1647	1800	1952	2104	2257	2409	2561	2713	2865	
53	3018	3170	3322	3474	3627	3779	3931	4083	4235	4388	
54	4540	4692	4844	4996	5148	5300	5453	5605	5757	5909	152
55	6061	6213	6365	6517	6670	6822	6974	7126	7278	7430	1 15.2
56	7582	7734	7886	8038	8190	8342	8494	8646	8798	8950	2 30.4
57	9102	9254	9406	9558	9710	9862	0014	0166	0318	0470	3 45.6
58	456 0622	0774	0926	1078	1230	1382	1534	1686	1838	1990	4 60.8
59	2142	2293	2445	2597	2749	2901	3053	3205	3357	3508	5 76.0
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61	5179	5330	5482	5634	5786	5938	6089	6241	6393	6545	7 106.4
62	6696	6848	7000	7152	7303	7455	7607	7758	7910	8062	8 121.6
63	8213	8365	8517	8669	8820	8972	9124	9275	9427	9578	9 136.8
64	9730	9882	0033	0185	0337	0488	0640	0791	0943	1095	
65	457 1246	1398	1549	1701	1853	2004	2156	2307	2459	2610	
66	2762	2913	3065	3216	3368	3519	3671	3822	3974	4125	151
67	4277	4428	4580	4731	4883	5034	5186	5337	5489	5640	1 15.1
68	5791	5943	6094	6246	6397	6549	6700	6851	7003	7154	2 30.2
69	7305	7457	7608	7760	7911	8062	8214	8365	8516	8668	3 45.3
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71	458 0332	0483	0634	0786	0937	1088	1239	1391	1542	1693	5 75.5
72	1844	1996	2147	2298	2449	2600	2752	2903	3054	3205	6 90.6
73	3356	3507	3659	3810	3961	4112	4263	4414	4565	4717	7 105.7
74	4868	5019	5170	5321	5472	5623	5774	5925	6076	6227	8 120.8
75	6378	6530	6681	6832	6983	7134	7285	7436	7587	7738	9 135.9
76	7889	8040	8191	8342	8493	8644	8795	8946	9097	9248	
77	9399	9550	9701	9851	0002	0153	0304	0455	0606	0757	
78	459 0908	1059	1210	1361	1511	1662	1813	1964	2115	2266	150
79	2417	2567	2718	2869	3020	3171	3322	3472	3623	3774	1 15.0
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81	5433	5583	5734	5885	6036	6186	6337	6488	6638	6789	3 45.0
82	6940	7090	7241	7392	7542	7693	7844	7994	8145	8296	4 60.0
83	8446	8597	8748	8898	9049	9200	9350	9501	9651	9802	5 75.0
84	9953	0103	0254	0404	0555	0705	0856	1007	1157	1308	6 90.0
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86	2963	3114	3264	3415	3565	3716	3866	4017	4167	4317	8 120.0
87	4468	4618	4769	4919	5070	5220	5370	5521	5671	5822	9 135.0
88	5972	6122	6273	6423	6573	6724	6874	7024	7175	7325	
89	7475	7626	7776	7926	8077	8227	8377	8528	8678	8828	
2890	8978	9129	9279	9429	9579	9730	9880	0030	0180	0331	149
91	461 0481	0631	0781	0932	1082	1232	1382	1532	1683	1833	1 14.9
92	1983	2133	2283	2433	2584	2734	2884	3034	3184	3334	2 29.8
93	3484	3634	3785	3935	4085	4235	4385	4535	4685	4835	3 44.7
94	4985	5135	5285	5435	5585	5736	5886	6036	6186	6336	4 59.6
95	6486	6636	6786	6936	7086	7236	7386	7536	7686	7836	5 74.5
96	7986	8136	8285	8435	8585	8735	8885	9035	9185	9335	6 89.4
97	9485	9635	9785	9935	0085	0234	0384	0534	0684	0834	7 104.3
98	462 0984	1134	1284	1433	1583	1733	1883	2033	2183	2332	8 119.2
99	2482	2632	2782	2932	3081	3231	3381	3531	3680	3830	9 134.1
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2900	462 3980	4130	4279	4429	4579	4729	4878	5028	5178	5328	
01	5477	5627	5777	5926	6076	6226	6375	6525	6675	6824	
02	6974	7124	7273	7423	7573	7722	7872	8022	8171	8321	
03	8470	8620	8770	8919	9069	9218	9368	9517	9667	9817	
04	9966	0116	0265	0415	0564	0714	0863	1013	1162	1312	150
05	463 1461	1611	1760	1910	2059	2209	2358	2508	2657	2807	1 15.0
06	2956	3106	3255	3404	3554	3703	3853	4002	4152	4301	2 30.0
07	4450	4600	4749	4898	5048	5197	5347	5496	5645	5795	3 45.0
08	5944	6093	6243	6392	6541	6691	6840	6989	7139	7288	4 60.0
09	7437	7587	7736	7885	8034	8184	8333	8482	8631	8781	5 75.0
2910	8930	9079	9228	9378	9527	9676	9825	9974	0124	0273	6 90.0
11	464 0422	0571	0720	0870	1019	1168	1317	1466	1615	1765	7 105.0
12	1914	2063	2212	2361	2510	2659	2808	2958	3107	3256	8 120.0
13	3405	3554	3703	3852	4001	4150	4299	4448	4597	4746	9 135.0
14	4895	5045	5194	5343	5492	5641	5790	5939	6088	6237	
15	6386	6535	6684	6833	6981	7130	7279	7428	7577	7726	
16	7875	8024	8173	8322	8471	8620	8769	8918	9067	9215	149
17	9364	9513	9662	9811	9960	0109	0258	0406	0555	0704	1 14.9
18	465 0853	1002	1151	1299	1448	1597	1746	1895	2043	2192	2 29.8
19	2341	2490	2639	2787	2936	3085	3234	3382	3531	3680	3 44.7
2920	3829	3977	4126	4275	4423	4572	4721	4870	5018	5167	4 59.6
21	5316	5464	5613	5762	5910	6059	6208	6356	6505	6653	5 74.5
22	6802	6951	7099	7248	7397	7545	7694	7842	7991	8140	6 89.4
23	8288	8437	8585	8734	8882	9031	9180	9328	9477	9625	7 104.3
24	9774	9922	0071	0219	0368	0516	0665	0813	0962	1110	8 119.2
25	466 1259	1407	1556	1704	1853	2001	2149	2298	2446	2595	9 134.1
26	2743	2892	3040	3188	3337	3485	3634	3782	3930	4079	
27	4227	4376	4524	4672	4821	4969	5117	5266	5414	5562	
28	5711	5859	6007	6156	6304	6452	6601	6749	6897	7045	148
29	7194	7342	7490	7639	7787	7935	8083	8232	8380	8528	1 14.8
2930	8676	8824	8973	9121	9269	9417	9565	9714	9862	0010	2 29.6
31	467 0158	0306	0455	0603	0751	0899	1047	1195	1343	1492	3 44.4
32	1640	1788	1936	2084	2232	2380	2528	2676	2824	2973	4 59.2
33	3121	3269	3417	3565	3713	3861	4009	4157	4305	4453	5 74.0
34	4601	4749	4897	5045	5193	5341	5489	5637	5785	5933	6 88.8
35	6081	6229	6377	6525	6673	6821	6969	7117	7265	7413	7 103.6
36	7561	7708	7856	8004	8152	8300	8448	8596	8744	8892	8 118.4
37	9039	9187	9335	9483	9631	9779	9927	0074	0222	0370	9 133.2
38	468 0518	0666	0814	0961	1109	1257	1405	1553	1700	1848	
39	1996	2144	2291	2439	2587	2735	2882	3030	3178	3326	
2940	3473	3621	3769	3916	4064	4212	4360	4507	4655	4803	147
41	4950	5098	5246	5393	5541	5689	5836	5984	6131	6279	1 14.7
42	6427	6574	6722	6870	7017	7165	7312	7460	7607	7755	2 29.4
43	7903	8050	8198	8345	8493	8640	8788	8935	9083	9231	3 44.1
44	9378	9526	9673	9821	9968	0116	0263	0411	0558	0706	4 58.8
45	469 0853	1000	1148	1295	1443	1590	1738	1885	2033	2180	5 73.5
46	2327	2475	2622	2770	2917	3064	3212	3359	3507	3654	6 88.2
47	3801	3949	4096	4243	4391	4538	4685	4833	4980	5127	7 102.9
48	5275	5422	5569	5717	5864	6011	6159	6306	6453	6600	8 117.6
49	6748	6895	7042	7190	7337	7484	7631	7778	7926	8073	9 132.3
2950	8220	8367	8515	8662	8809	8956	9103	9251	9398	9545	
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52	470 1164	1311	1458	1605	1752	1899	2046	2193	2340	2487	
53	2634	2782	2929	3076	3223	3370	3517	3664	3811	3958	
54	4105	4252	4399	4546	4693	4840	4987	5134	5281	5428	147
55	5575	5722	5869	6016	6163	6310	6457	6604	6750	6897	1 14.7
56	7044	7191	7338	7485	7632	7779	7926	8073	8219	8366	2 29.4
57	8513	8660	8807	8954	9101	9248	9394	9541	9688	9835	3 44.1
58	9982	0129	0275	0422	0569	0716	0863	1009	1156	1303	4 58.8
59	471 1450	1596	1743	1890	2037	2183	2330	2477	2624	2770	5 73.5
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61	4384	4531	4677	4824	4971	5117	5264	5411	5557	5704	7 102.9
62	5851	5997	6144	6290	6437	6584	6730	6877	7023	7170	8 117.6
63	7317	7463	7610	7756	7903	8049	8196	8342	8489	8635	9 132.3
64	8782	8929	9075	9222	9368	9515	9661	9808	9954	0101	
65	472 0247	0393	0540	0686	0833	0979	1126	1272	1419	1565	
66	1711	1858	2004	2151	2297	2444	2590	2736	2883	3029	146
67	3175	3322	3468	3615	3761	3907	4054	4200	4346	4493	1 14.6
68	4639	4785	4932	5078	5224	5371	5517	5663	5809	5956	2 29.2
69	6102	6248	6395	6541	6687	6833	6980	7126	7272	7418	3 43.8
2970	7564	7711	7857	8003	8149	8296	8442	8588	8734	8880	4 58.4
71	9027	9173	9319	9465	9611	9757	9903	0050	0196	0342	5 73.0
72	473 0488	0634	0780	0926	1073	1219	1365	1511	1657	1803	6 87.6
73	1949	2095	2241	2387	2533	2679	2825	2972	3118	3264	7 102.2
74	3410	3556	3702	3848	3994	4140	4286	4432	4578	4724	8 116.8
75	4870	5016	5162	5308	5454	5600	5746	5891	6037	6183	9 131.4
76	6329	6475	6621	6767	6913	7059	7205	7351	7497	7642	
77	7788	7934	8080	8226	8372	8518	8664	8809	8955	9101	145
78	9247	9393	9539	9684	9830	9976	0122	0268	0413	0559	1 14.5
79	474 0705	0851	0997	1142	1288	1434	1580	1725	1871	2017	2 29.0
2980	2163	2308	2454	2600	2746	2891	3037	3183	3328	3474	3 43.5
81	3620	3765	3911	4057	4202	4348	4494	4639	4785	4931	4 58.0
82	5076	5222	5368	5513	5659	5805	5950	6096	6241	6387	5 72.5
83	6533	6678	6824	6969	7115	7260	7406	7552	7697	7843	6 87.0
84	7988	8134	8279	8425	8570	8716	8861	9007	9152	9298	7 101.5
85	9443	9589	9734	9880	0025	0171	0316	0462	0607	0753	8 116.0
86	475 0898	1043	1189	1334	1480	1625	1771	1916	2061	2207	9 130.5
87	2352	2498	2643	2788	2934	3079	3225	3370	3515	3661	
88	3806	3951	4097	4242	4387	4533	4678	4823	4969	5114	
89	5259	5404	5550	5695	5840	5986	6131	6276	6421	6567	144
2990	6712	6857	7002	7148	7293	7438	7583	7729	7874	8019	1 14.4
91	8164	8309	8455	8600	8745	8890	9035	9180	9326	9471	2 28.8
92	9616	9761	9906	0051	0196	0342	0487	0632	0777	0922	3 43.2
93	476 1067	1212	1357	1502	1648	1793	1938	2083	2228	2373	4 57.6
94	2518	2663	2808	2953	3098	3243	3388	3533	3678	3823	5 72.0
95	3968	4113	4258	4403	4548	4693	4838	4983	5128	5273	6 86.4
96	5418	5563	5708	5853	5998	6143	6288	6433	6578	6723	7 100.8
97	6867	7012	7157	7302	7447	7592	7737	7882	8027	8171	8 115.2
98	8316	8461	8606	8751	8896	9041	9185	9330	9475	9620	9 129.6
99	9765	9909	0054	0199	0344	0489	0633	0778	0923	1068	
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01	2660	2805	2949	3094	3239	3383	3528	3673	3818	3962	
02	4107	4252	4396	4541	4686	4830	4975	5119	5264	5409	
03	5553	5698	5843	5987	6132	6276	6421	6566	6710	6855	
04	6999	7144	7288	7433	7578	7722	7867	8011	8156	8300	145
05	8445	8589	8734	8878	9023	9167	9312	9456	9601	9745	1 14.5
06	9890	0034	0179	0323	0468	0612	0757	0901	1045	1190	2 29.0
07	478 1334	1479	1623	1768	1912	2056	2201	2345	2490	2634	3 43.5
08	2778	2923	3067	3211	3356	3500	3645	3789	3933	4078	4 58.0
09	4222	4366	4511	4655	4799	4943	5088	5232	5376	5521	5 72.5
3010	5665	5809	5954	6098	6242	6386	6531	6675	6819	6963	6 87.0
11	7108	7252	7396	7540	7684	7829	7973	8117	8261	8405	7 101.5
12	8550	8694	8838	8982	9126	9271	9415	9559	9703	9847	8 116.0
13	9991	0135	0280	0424	0568	0712	0856	1000	1144	1288	9 130.5
14	479 1432	1577	1721	1865	2009	2153	2297	2441	2585	2729	
15	2873	3017	3161	3305	3449	3593	3737	3881	4025	4169	
16	4313	4457	4601	4745	4889	5033	5177	5321	5465	5609	144
17	5753	5897	6041	6185	6329	6473	6617	6761	6905	7048	1 14.4
18	7192	7336	7480	7624	7768	7912	8056	8200	8343	8487	2 28.8
19	8631	8775	8919	9063	9207	9350	9494	9638	9782	9926	3 43.2
3020	480 0069	0213	0357	0501	0645	0788	0932	1076	1220	1363	4 57.6
21	1507	1651	1795	1939	2082	2226	2370	2513	2657	2801	5 72.0
22	2945	3088	3232	3376	3519	3663	3807	3950	4094	4238	6 86.4
23	4381	4525	4669	4812	4956	5100	5243	5387	5531	5674	7 100.8
24	5818	5961	6105	6249	6392	6536	6679	6823	6967	7110	8 115.2
25	7254	7397	7541	7684	7828	7972	8115	8259	8402	8546	9 129.6
26	8689	8833	8976	9120	9263	9407	9550	9694	9837	9981	
27	481 0124	0268	0411	0555	0698	0842	0985	1128	1272	1415	143
28	1559	1702	1846	1989	2132	2276	2419	2563	2706	2849	1 14.3
29	2993	3136	3279	3423	3566	3710	3853	3996	4140	4283	2 28.6
3030	4426	4570	4713	4856	5000	5143	5286	5429	5573	5716	3 42.9
31	5859	6003	6146	6289	6432	6576	6719	6862	7005	7149	4 57.2
32	7292	7435	7578	7722	7865	8008	8151	8295	8438	8581	5 71.5
33	8724	8867	9010	9154	9297	9440	9583	9726	9869	0013	6 85.8
34	482 0156	0299	0442	0585	0728	0871	1015	1158	1301	1444	7 100.1
35	1587	1730	1873	2016	2159	2302	2445	2589	2732	2875	8 114.4
36	3018	3161	3304	3447	3590	3733	3876	4019	4162	4305	9 128.7
37	4448	4591	4734	4877	5020	5163	5306	5449	5592	5735	
38	5878	6021	6164	6307	6449	6592	6735	6878	7021	7164	
39	7307	7450	7593	7736	7879	8021	8164	8307	8450	8593	142
3040	8736	8879	9022	9164	9307	9450	9593	9736	9879	0021	1 14.2
41	483 0164	0307	0450	0593	0735	0878	1021	1164	1307	1449	2 28.4
42	1592	1735	1878	2020	2163	2306	2449	2591	2734	2877	3 42.6
43	3020	3162	3305	3448	3590	3733	3876	4018	4161	4304	4 56.8
44	4446	4589	4732	4874	5017	5160	5302	5445	5588	5730	5 71.0
45	5873	6016	6158	6301	6443	6586	6729	6871	7014	7156	6 85.2
46	7299	7442	7584	7727	7869	8012	8154	8297	8439	8582	7 99.4
47	8725	8867	9010	9152	9295	9437	9580	9722	9865	0007	8 113.6
48	484 0150	0292	0435	0577	0720	0862	1004	1147	1289	1432	9 127.8
49	1574	1717	1859	2002	2144	2286	2429	2571	2714	2856	
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51	4422	4564	4707	4849	4991	5134	5276	5418	5561	5703	
52	5845	5988	6130	6272	6414	6557	6699	6841	6984	7126	
53	7268	7410	7553	7695	7837	7979	8121	8264	8406	8548	
54	8690	8833	8975	9117	9259	9401	9543	9686	9828	9970	143
55	485 0112	0254	0396	0539	0681	0823	0965	1107	1249	1391	1 14.3
56	1533	1676	1818	1960	2102	2244	2386	2528	2670	2812	2 28.6
57	2954	3096	3239	3381	3523	3665	3807	3949	4091	4233	3 42.9
58	4375	4517	4659	4801	4943	5085	5227	5369	5511	5653	4 57.2
59	5795	5937	6079	6221	6363	6505	6647	6788	6930	7072	5 71.5
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61	8633	8775	8917	9059	9201	9343	9484	9626	9768	9910	7 100.1
62	486 0052	0194	0336	0477	0619	0761	0903	1045	1186	1328	8 114.4
63	1470	1612	1754	1895	2037	2179	2321	2462	2604	2746	9 128.7
64	2888	3029	3171	3313	3455	3596	3738	3880	4021	4163	
65	4305	4446	4588	4730	4872	5013	5155	5297	5438	5580	
66	5722	5863	6005	6146	6288	6430	6571	6713	6855	6996	142
67	7138	7279	7421	7563	7704	7846	7987	8129	8270	8412	1 14.2
68	8554	8695	8837	8978	9120	9261	9403	9544	9686	9827	2 28.4
69	9969	0110	0252	0393	0535	0676	0818	0959	1101	1242	3 42.6
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71	2798	2940	3081	3222	3364	3505	3647	3788	3929	4071	5 71.0
72	4212	4353	4495	4636	4778	4919	5060	5202	5343	5484	6 85.2
73	5626	5767	5908	6050	6191	6332	6473	6615	6756	6897	7 99.4
74	7039	7180	7321	7462	7604	7745	7886	8027	8169	8310	8 113.6
75	8451	8592	8734	8875	9016	9157	9299	9440	9581	9722	9 127.8
76	9863	0004	0146	0287	0428	0569	0710	0852	0993	1134	
77	488 1275	1416	1557	1698	1839	1981	2122	2263	2404	2545	141
78	2686	2827	2968	3109	3251	3392	3533	3674	3815	3956	1 14.1
79	4097	4238	4379	4520	4661	4802	4943	5084	5225	5366	2 28.2
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81	6917	7058	7199	7340	7481	7622	7763	7904	8045	8185	4 56.4
82	8326	8467	8608	8749	8890	9031	9172	9313	9454	9594	5 70.5
83	9735	9876	0017	0158	0299	0440	0580	0721	0862	1003	6 84.6
84	489 1144	1285	1425	1566	1707	1848	1989	2129	2270	2411	7 98.7
85	2552	2692	2833	2974	3115	3256	3396	3537	3678	3818	8 112.8
86	3959	4100	4241	4381	4522	4663	4804	4944	5085	5226	9 126.9
87	5366	5507	5648	5788	5929	6070	6210	6351	6492	6632	
88	6773	6914	7054	7195	7335	7476	7617	7757	7898	8038	
89	8179	8320	8460	8601	8741	8882	9023	9163	9304	9444	140
3090	9585	9725	9866	0006	0147	0287	0428	0569	0709	0850	1 14.0
91	490 0990	1131	1271	1412	1552	1693	1833	1973	2114	2254	2 28.0
92	2395	2535	2676	2816	2957	3097	3238	3378	3518	3659	3 42.0
93	3799	3940	4080	4220	4361	4501	4642	4782	4922	5063	4 56.0
94	5203	5343	5484	5624	5765	5905	6045	6186	6326	6466	5 70.0
95	6607	6747	6887	7027	7168	7308	7448	7589	7729	7869	6 84.0
96	8010	8150	8290	8430	8571	8711	8851	8991	9132	9272	7 98.0
97	9412	9552	9693	9833	9973	0113	0253	0394	0534	0674	8 112.0
98	491 0814	0954	1094	1235	1375	1515	1655	1795	1935	2076	9 126.0
99	2216	2356	2496	2636	2776	2916	3057	3197	3337	3477	
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3100	491 3617	3757	3897	4037	4177	4317	4457	4597	4738	4878	
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02	6418	6558	6698	6838	6978	7118	7258	7398	7538	7678	
03	7818	7958	8098	8238	8378	8517	8657	8797	8937	9077	
04	9217	9357	9497	9637	9777	9917	0057	0196	0336	0476	141
05	492 0616	0756	0896	1036	1175	1315	1455	1595	1735	1875	1 14.1
06	2015	2154	2294	2434	2574	2714	2853	2993	3133	3273	2 28.2
07	3413	3552	3692	3832	3972	4111	4251	4391	4531	4670	3 42.3
08	4810	4950	5090	5229	5369	5509	5648	5788	5928	6068	4 56.4
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11	9000	9140	9279	9419	9558	9698	9838	9977	0117	0256	7 98.7
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13	1791	1931	2070	2210	2349	2489	2628	2768	2907	3047	9 126.9
14	3186	3326	3465	3604	3744	3883	4023	4162	4302	4441	
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17	7368	7507	7647	7786	7925	8065	8204	8343	8483	8622	1 14.0
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19	494 0154	0293	0432	0571	0711	0850	0989	1128	1268	1407	3 42.0
3120	1546	1685	1824	1964	2103	2242	2381	2520	2659	2799	4 56.0
21	2938	3077	3216	3355	3494	3633	3773	3912	4051	4190	5 70.0
22	4329	4468	4607	4746	4885	5024	5164	5303	5442	5581	6 84.0
23	5720	5859	5998	6137	6276	6415	6554	6693	6832	6971	7 98.0
24	7110	7249	7388	7527	7666	7805	7944	8083	8222	8361	8 112.0
25	8500	8639	8778	8917	9056	9195	9334	9473	9612	9751	9 126.0
26	9890	0029	0168	0307	0445	0584	0723	0862	1001	1140	
27	495 1279	1418	1557	1695	1834	1973	2112	2251	2390	2529	139
28	2667	2806	2945	3084	3223	3362	3500	3639	3778	3917	1 13.9
29	4056	4194	4333	4472	4611	4750	4888	5027	5166	5305	2 27.8
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31	6831	6969	7108	7247	7385	7524	7663	7802	7940	8079	4 55.6
32	8218	8356	8495	8634	8772	8911	9049	9188	9327	9465	5 69.5
33	9604	9743	9881	0020	0158	0297	0436	0574	0713	0851	6 83.4
34	496 0990	1128	1267	1406	1544	1683	1821	1960	2098	2237	7 97.3
35	2375	2514	2653	2791	2930	3068	3207	3345	3484	3622	8 111.2
36	3761	3899	4038	4176	4314	4453	4591	4730	4868	5007	9 125.1
37	5145	5284	5422	5560	5699	5837	5976	6114	6253	6391	
38	6529	6668	6806	6945	7083	7221	7360	7498	7636	7775	
39	7913	8052	8190	8328	8467	8605	8743	8882	9020	9158	138
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41	497 0679	0818	0956	1094	1232	1371	1509	1647	1785	1924	2 27.6
42	2062	2200	2338	2476	2615	2753	2891	3029	3167	3306	3 41.4
43	3444	3582	3720	3858	3996	4135	4273	4411	4549	4687	4 55.2
44	4825	4964	5102	5240	5378	5516	5654	5792	5930	6068	5 69.0
45	6206	6345	6483	6621	6759	6897	7035	7173	7311	7449	6 82.8
46	7587	7725	7863	8001	8139	8277	8415	8553	8691	8829	7 96.6
47	8967	9105	9243	9381	9519	9657	9795	9933	0071	0209	8 110.4
48	498 0347	0485	0623	0761	0899	1037	1175	1313	1451	1589	9 124.2
49	1727	1865	2002	2140	2278	2416	2554	2692	2830	2968	
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51	4484	4622	4760	4897	5035	5173	5311	5449	5587	5724	
52	5862	6000	6138	6275	6413	6551	6689	6826	6964	7102	
53	7240	7377	7515	7653	7791	7928	8066	8204	8341	8479	
54	8617	8755	8892	9030	9168	9305	9443	9581	9718	9856	138
55	9994	0131	0269	0407	0544	0682	0819	0957	1095	1232	1 13.8
56	499 1370	1508	1645	1783	1920	2058	2196	2333	2471	2608	2 27.6
57	2746	2883	3021	3158	3296	3434	3571	3709	3846	3984	3 41.4
58	4121	4259	4396	4534	4671	4809	4946	5084	5221	5359	4 55.2
59	5496	5634	5771	5909	6046	6184	6321	6459	6596	6733	5 69.0
3160	6871	7008	7146	7283	7421	7558	7695	7833	7970	8108	6 82.8
61	8245	8382	8520	8657	8794	8932	9069	9207	9344	9481	7 96.6
62	9619	9756	9893	0031	0168	0305	0443	0580	0717	0855	8 110.4
63	500 0992	1129	1267	1404	1541	1678	1816	1953	2090	2227	9 124.2
64	2365	2502	2639	2777	2914	3051	3188	3325	3463	3600	
65	3737	3874	4012	4149	4286	4423	4560	4698	4835	4972	
66	5109	5246	5383	5521	5658	5795	5932	6069	6206	6344	137
67	6481	6618	6755	6892	7029	7166	7303	7440	7578	7715	1 13.7
68	7852	7989	8126	8263	8400	8537	8674	8811	8948	9085	2 27.4
69	9222	9359	9496	9634	9771	9908	0045	0182	0319	0456	3 41.1
3170	501 0593	0730	0867	1004	1141	1278	1415	1552	1688	1825	4 54.8
71	1962	2099	2236	2373	2510	2647	2784	2921	3058	3195	5 68.5
72	3332	3469	3606	3743	3879	4016	4153	4290	4427	4564	6 82.2
73	4701	4838	4974	5111	5248	5385	5522	5659	5796	5932	7 95.9
74	6069	6206	6343	6480	6617	6753	6890	7027	7164	7301	8 109.6
75	7437	7574	7711	7848	7984	8121	8258	8395	8531	8668	9 123.3
76	8805	8942	9078	9215	9352	9489	9625	9762	9899	0035	
77	502 0172	0309	0446	0582	0719	0856	0992	1129	1266	1402	136
78	1539	1676	1812	1949	2086	2222	2359	2495	2632	2769	1 13.6
79	2905	3042	3178	3315	3452	3588	3725	3861	3998	4135	2 27.2
3180	4271	4408	4544	4681	4817	4954	5091	5227	5364	5500	3 40.8
81	5637	5773	5910	6046	6183	6319	6456	6592	6729	6865	4 54.4
82	7002	7138	7275	7411	7548	7684	7821	7957	8093	8230	5 68.0
83	8366	8503	8639	8776	8912	9049	9185	9321	9458	9594	6 81.6
84	9731	9867	0003	0140	0276	0413	0549	0685	0822	0958	7 95.2
85	503 1094	1231	1367	1503	1640	1776	1912	2049	2185	2321	8 108.8
86	2458	2594	2730	2867	3003	3139	3276	3412	3548	3684	9 122.4
87	3821	3957	4093	4229	4366	4502	4638	4774	4911	5047	
88	5183	5319	5456	5592	5728	5864	6000	6137	6273	6409	
89	6545	6681	6818	6954	7090	7226	7362	7498	7635	7771	135
3190	7907	8043	8179	8315	8451	8587	8724	8860	8996	9132	1 13.5
91	9268	9404	9540	9676	9812	9948	0085	0221	0357	0493	2 27.0
92	504 0629	0765	0901	1037	1173	1309	1445	1581	1717	1853	3 40.5
93	1989	2125	2261	2397	2533	2669	2805	2941	3077	3213	4 54.0
94	3349	3485	3621	3757	3893	4029	4165	4301	4437	4573	5 67.5
95	4709	4845	4980	5116	5252	5388	5524	5660	5796	5932	6 81.0
96	6068	6204	6339	6475	6611	6747	6883	7019	7155	7291	7 94.5
97	7426	7562	7698	7834	7970	8106	8241	8377	8513	8649	8 108.0
98	8785	8920	9056	9192	9328	9464	9599	9735	9871	0007	9 121.5
99	505 0142	0278	0414	0550	0685	0821	0957	1093	1228	1364	
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01	2857	2992	3128	3264	3399	3535	3671	3806	3942	4078	
02	4213	4349	4485	4620	4756	4891	5027	5163	5298	5434	
03	5569	5705	5841	5976	6112	6247	6383	6518	6654	6790	
04	6925	7061	7196	7332	7467	7603	7738	7874	8009	8145	136
05	8280	8416	8551	8687	8822	8958	9093	9229	9364	9500	1 13.6
06	9635	9771	9906	0042	0177	0312	0448	0583	0719	0854	2 27.2
07	506 0990	1125	1260	1396	1531	1667	1802	1937	2073	2208	3 40.8
08	2344	2479	2614	2750	2885	3020	3156	3291	3426	3562	4 54.4
09	3697	3833	3968	4103	4238	4374	4509	4644	4780	4915	5 68.0
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11	6403	6538	6674	6809	6944	7079	7214	7350	7485	7620	7 95.2
12	7755	7891	8026	8161	8296	8431	8567	8702	8837	8972	8 108.8
13	9107	9242	9378	9513	9648	9783	9918	0053	0188	0324	9 122.4
14	507 0459	0594	0729	0864	0999	1134	1269	1405	1540	1675	
15	1810	1945	2080	2215	2350	2485	2620	2755	2890	3025	
16	3160	3295	3430	3566	3701	3836	3971	4106	4241	4376	135
17	4511	4646	4781	4916	5051	5186	5321	5456	5590	5725	1 13.5
18	5860	5995	6130	6265	6400	6535	6670	6805	6940	7075	2 27.0
19	7210	7345	7480	7614	7749	7884	8019	8154	8289	8424	3 40.5
3220	8559	8694	8828	8963	9098	9233	9368	9503	9638	9772	4 54.0
21	9907	0042	0177	0312	0447	0581	0716	0851	0986	1121	5 67.5
22	508 1255	1390	1525	1660	1794	1929	2064	2199	2334	2468	6 81.0
23	2603	2738	2873	3007	3142	3277	3411	3546	3681	3816	7 94.5
24	3950	4085	4220	4354	4489	4624	4758	4893	5028	5163	8 108.0
25	5297	5432	5567	5701	5836	5970	6105	6240	6374	6509	9 121.5
26	6644	6778	6913	7047	7182	7317	7451	7586	7720	7855	
27	7990	8124	8259	8393	8528	8663	8797	8932	9066	9201	
28	9335	9470	9604	9739	9873	0008	0142	0277	0411	0546	134
29	509 0680	0815	0949	1084	1218	1353	1487	1622	1756	1891	1 13.4
3230	2025	2160	2294	2429	2563	2697	2832	2966	3101	3235	2 26.8
31	3370	3504	3638	3773	3907	4042	4176	4310	4445	4579	3 40.2
32	4714	4848	4982	5117	5251	5385	5520	5654	5788	5923	4 53.6
33	6057	6191	6326	6460	6594	6729	6863	6997	7132	7266	5 67.0
34	7400	7534	7669	7803	7937	8072	8206	8340	8474	8609	6 80.4
35	8743	8877	9011	9146	9280	9414	9548	9682	9817	9951	7 93.8
36	510 0085	0219	0354	0488	0622	0756	0890	1024	1159	1293	8 107.2
37	1427	1561	1695	1829	1964	2098	2232	2366	2500	2634	9 120.6
38	2768	2903	3037	3171	3305	3439	3573	3707	3841	3975	
39	4109	4244	4378	4512	4646	4780	4914	5048	5182	5316	
3240	5450	5584	5718	5852	5986	6120	6254	6388	6522	6656	133
41	6790	6924	7058	7192	7326	7460	7594	7728	7862	7996	1 13.3
42	8130	8264	8398	8532	8666	8800	8934	9068	9202	9336	2 26.6
43	9469	9603	9737	9871	0005	0139	0273	0407	0541	0675	3 39.9
44	511 0808	0942	1076	1210	1344	1478	1612	1745	1879	2013	4 53.2
45	2147	2281	2415	2548	2682	2816	2950	3084	3218	3351	5 66.5
46	3485	3619	3753	3887	4020	4154	4288	4422	4555	4689	6 79.8
47	4823	4957	5090	5224	5358	5492	5625	5759	5893	6026	7 93.1
48	6160	6294	6428	6561	6695	6829	6962	7096	7230	7363	8 106.4
49	7497	7631	7764	7898	8032	8165	8299	8433	8566	8700	9 119.7
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3250	511 8834	8967	9101	9234	9368	9502	9635	9769	9903	0036	
51	512 0170	0303	0437	0570	0704	0838	0971	1105	1238	1372	
52	1505	1639	1772	1906	2040	2173	2307	2440	2574	2707	
53	2841	2974	3108	3241	3375	3508	3642	3775	3909	4042	
54	4175	4309	4442	4576	4709	4843	4976	5110	5243	5377	134
55	5510	5643	5777	5910	6044	6177	6310	6444	6577	6711	1 13.4
56	6844	6977	7111	7244	7377	7511	7644	7778	7911	8044	2 26.8
57	8178	8311	8444	8578	8711	8844	8978	9111	9244	9377	3 40.2
58	9511	9644	9777	9911	0044	0177	0311	0444	0577	0710	4 53.6
59	513 0844	0977	1110	1243	1377	1510	1643	1776	1910	2043	5 67.0
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61	3508	3641	3774	3908	4041	4174	4307	4440	4573	4706	7 93.8
62	4840	4973	5106	5239	5372	5505	5638	5771	5905	6038	8 107.2
63	6171	6304	6437	6570	6703	6836	6969	7102	7235	7368	9 120.6
64	7502	7635	7768	7901	8034	8167	8300	8433	8566	8699	
65	8832	8965	9098	9231	9364	9497	9630	9763	9896	0029	
66	514 0162	0295	0428	0561	0694	0827	0960	1093	1225	1358	133
67	1491	1624	1757	1890	2023	2156	2289	2422	2555	2688	1 13.3
68	2820	2953	3086	3219	3352	3485	3618	3751	3883	4016	2 26.6
69	4149	4282	4415	4548	4681	4813	4946	5079	5212	5345	3 39.9
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71	6805	6938	7071	7204	7336	7469	7602	7735	7867	8000	5 66.5
72	8133	8266	8398	8531	8664	8797	8929	9062	9195	9327	6 79.8
73	9460	9593	9725	9858	9991	0123	0256	0389	0521	0654	7 93.1
74	515 0787	0919	1052	1185	1317	1450	1583	1715	1848	1980	8 106.4
75	2113	2246	2378	2511	2643	2776	2909	3041	3174	3306	9 119.7
76	3439	3571	3704	3837	3969	4102	4234	4367	4499	4632	
77	4764	4897	5029	5162	5294	5427	5560	5692	5825	5957	132
78	6089	6222	6354	6487	6619	6752	6884	7017	7149	7282	1 13.2
79	7414	7547	7679	7811	7944	8076	8209	8341	8474	8606	2 26.4
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81	516 0062	0195	0327	0459	0592	0724	0856	0989	1121	1253	4 52.8
82	1386	1518	1650	1783	1915	2047	2180	2312	2444	2577	5 66.0
83	2709	2841	2973	3106	3238	3370	3502	3635	3767	3899	6 79.2
84	4031	4164	4296	4428	4560	4693	4825	4957	5089	5222	7 92.4
85	5354	5486	5618	5750	5883	6015	6147	6279	6411	6543	8 105.6
86	6676	6808	6940	7072	7204	7336	7469	7601	7733	7865	9 118.8
87	7997	8129	8261	8393	8526	8658	8790	8922	9054	9186	
88	9318	9450	9582	9714	9846	9978	0111	0243	0375	0507	
89	517 0639	0771	0903	1035	1167	1299	1431	1563	1695	1827	131
3290	1959	2091	2223	2355	2487	2619	2751	2883	3015	3147	1 13.1
91	3279	3411	3543	3675	3807	3939	4071	4202	4334	4466	2 26.2
92	4598	4730	4862	4994	5126	5258	5390	5522	5654	5785	3 39.3
93	5917	6049	6181	6313	6445	6577	6709	6840	6972	7104	4 52.4
94	7236	7368	7500	7631	7763	7895	8027	8159	8291	8422	5 65.5
95	8554	8686	8818	8950	9081	9213	9345	9477	9608	9740	6 78.6
96	9872	0004	0136	0267	0399	0531	0663	0794	0926	1058	7 91.7
97	518 1189	1321	1453	1585	1716	1848	1980	2111	2243	2375	8 104.8
98	2507	2638	2770	2902	3033	3165	3297	3428	3560	3692	9 117.9
99	3823	3955	4086	4218	4350	4481	4613	4745	4876	5008	
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3300	518 5139	5271	5403	5534	5666	5797	5929	6061	6192	6324	
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02	7771	7902	8034	8165	8297	8428	8560	8691	8823	8954	
03	9086	9217	9349	9480	9612	9743	9875	$\bar{0}006$	$\bar{0}137$	$\bar{0}269$	
04	519 0400	0532	0663	0795	0926	1058	1189	1320	1452	1583	132
05	1715	1846	1977	2109	2240	2372	2503	2634	2766	2897	1 13.2
06	3028	3160	3291	3423	3554	3685	3817	3948	4079	4211	2 26.4
07	4342	4473	4605	4736	4867	4999	5130	5261	5392	5524	3 39.6
08	5655	5786	5918	6049	6180	6311	6443	6574	6705	6836	4 52.8
09	6968	7099	7230	7361	7493	7624	7755	7886	8018	8149	5 66.0
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11	9592	9723	9854	9985	$\bar{0}116$	$\bar{0}248$	$\bar{0}379$	$\bar{0}510$	$\bar{0}641$	$\bar{0}772$	7 92.4
12	520 0903	1034	1166	1297	1428	1559	1690	1821	1952	2083	8 105.6
13	2214	2345	2477	2608	2739	2870	3001	3132	3263	3394	9 118.8
14	3525	3656	3787	3918	4049	4180	4311	4442	4573	4704	
15	4835	4966	5097	5228	5359	5490	5621	5752	5883	6014	
16	6145	6276	6407	6538	6669	6800	6931	7062	7193	7324	131
17	7455	7586	7717	7847	7978	8109	8240	8371	8502	8633	1 13.1
18	8764	8895	9026	9156	9287	9418	9549	9680	9811	9942	2 26.2
19	521 0073	0203	0334	0465	0596	0727	0858	0988	1119	1250	3 39.3
3320	1381	1512	1642	1773	1904	2035	2166	2296	2427	2558	4 52.4
21	2689	2820	2950	3081	3212	3343	3473	3604	3735	3866	5 65.5
22	3996	4127	4258	4388	4519	4650	4781	4911	5042	5173	6 78.6
23	5303	5434	5565	5695	5826	5957	6088	6218	6349	6479	7 91.7
24	6610	6741	6871	7002	7133	7263	7394	7525	7655	7786	8 104.8
25	7916	8047	8178	8308	8439	8570	8700	8831	8961	9092	9 117.9
26	9222	9353	9484	9614	9745	9875	$\bar{0}006$	$\bar{0}136$	$\bar{0}267$	$\bar{0}397$	
27	522 0528	0659	0789	0920	1050	1181	1311	1442	1572	1703	130
28	1833	1964	2094	2225	2355	2486	2616	2747	2877	3007	1 13.0
29	3138	3268	3399	3529	3660	3790	3921	4051	4181	4312	2 26.0
3330	4442	4573	4703	4834	4964	5094	5225	5355	5486	5616	3 39.0
31	5746	5877	6007	6137	6268	6398	6529	6659	6789	6920	4 52.0
32	7050	7180	7311	7441	7571	7702	7832	7962	8093	8223	5 65.0
33	8353	8483	8614	8744	8874	9005	9135	9265	9395	9526	6 78.0
34	9656	9786	9916	$\bar{0}047$	$\bar{0}177$	$\bar{0}307$	$\bar{0}437$	$\bar{0}568$	$\bar{0}698$	$\bar{0}828$	7 91.0
35	523 0958	1089	1219	1349	1479	1609	1740	1870	2000	2130	8 104.0
36	2260	2391	2521	2651	2781	2911	3041	3172	3302	3432	9 117.0
37	3562	3692	3822	3952	4083	4213	4343	4473	4603	4733	
38	4863	4993	5124	5254	5384	5514	5644	5774	5904	6034	
39	6164	6294	6424	6554	6684	6814	6945	7075	7205	7335	129
3340	7465	7595	7725	7855	7985	8115	8245	8375	8505	8635	1 12.9
41	8765	8895	9025	9155	9285	9415	9545	9675	9805	9935	2 25.8
42	524 0064	0194	0324	0454	0584	0714	0844	0974	1104	1234	3 38.7
43	1364	1494	1624	1753	1883	2013	2143	2273	2403	2533	4 51.6
44	2663	2793	2922	3052	3182	3312	3442	3572	3702	3831	5 64.5
45	3961	4091	4221	4351	4481	4610	4740	4870	5000	5130	6 77.4
46	5259	5389	5519	5649	5779	5908	6038	6168	6298	6427	7 90.3
47	6557	6687	6817	6946	7076	7206	7336	7465	7595	7725	8 103.2
48	7854	7984	8114	8244	8373	8503	8633	8762	8892	9022	9 116.1
49	9151	9281	9411	9540	9670	9800	9929	$\bar{0}059$	$\bar{0}189$	$\bar{0}318$	
3350	525 0448	0578	0707	0837	0967	1096	1226	1355	1485	1615	
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51	1744	1874	2003	2133	2263	2392	2522	2651	2781	2911	
52	3040	3170	3299	3429	3558	3688	3817	3947	4076	4206	
53	4336	4465	4595	4724	4854	4983	5113	5242	5372	5501	
54	5631	5760	5890	6019	6148	6278	6407	6537	6666	6796	130
55	6925	7055	7184	7314	7443	7572	7702	7831	7961	8090	1 13.0
56	8220	8349	8478	8608	8737	8867	8996	9125	9255	9384	2 26.0
57	9513	9643	9772	9902	0031	0160	0290	0419	0548	0678	3 39.0
58	526 0807	0936	1066	1195	1324	1454	1583	1712	1841	1971	4 52.0
59	2100	2229	2359	2488	2617	2746	2876	3005	3134	3264	5 65.0
3360	3393	3522	3651	3781	3910	4039	4168	4297	4427	4556	6 78.0
61	4685	4814	4944	5073	5202	5331	5460	5590	5719	5848	7 91.0
62	5977	6106	6235	6365	6494	6623	6752	6881	7010	7140	8 104.0
63	7269	7398	7527	7656	7785	7914	8043	8173	8302	8431	9 117.0
64	8560	8689	8818	8947	9076	9205	9334	9463	9593	9722	
65	9851	9980	0109	0238	0367	0496	0625	0754	0883	1012	
66	527 1141	1270	1399	1528	1657	1786	1915	2044	2173	2302	129
67	2431	2560	2689	2818	2947	3076	3205	3334	3463	3592	1 12.9
68	3721	3850	3979	4108	4237	4366	4494	4623	4752	4881	2 25.8
69	5010	5139	5268	5397	5526	5655	5783	5912	6041	6170	3 38.7
3370	6299	6428	6557	6686	6814	6943	7072	7201	7330	7459	4 51.6
71	7588	7716	7845	7974	8103	8232	8360	8489	8618	8747	5 64.5
72	8876	9004	9133	9262	9391	9520	9648	9777	9906	0035	6 77.4
73	528 0163	0292	0421	0550	0678	0807	0936	1065	1193	1322	7 90.3
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83	3020	3148	3277	3405	3533	3662	3790	3919	4047	4175	6 76.8
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92	4558	4686	4814	4943	5071	5199	5327	5455	5583	5711	3 38.1
93	5839	5967	6095	6223	6351	6479	6607	6734	6862	6990	4 50.8
94	7118	7246	7374	7502	7630	7758	7886	8014	8142	8270	5 63.5
95	8398	8526	8654	8782	8909	9037	9165	9293	9421	9549	6 76.2
96	9677	9805	9933	0060	0188	0316	0444	0572	0700	0828	7 88.9
97	531 0955	1083	1211	1339	1467	1595	1722	1850	1978	2106	8 101.6
98	2234	2362	2489	2617	2745	2873	3001	3128	3256	3384	9 114.3
99	3512	3639	3767	3895	4023	4150	4278	4406	4534	4661	
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53	1966	2092	2217	2343	2469	2595	2720	2846	2972	3098	
54	3223	3349	3475	3601	3726	3852	3978	4103	4229	4355	
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58	8250	8375	8501	8627	8752	8878	9003	9129	9255	9380	
59	9506	9631	9757	9882	0008	0133	0259	0384	0510	0635	
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68	540 0791	0916	1041	1167	1292	1417	1542	1667	1793	1918	
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72	5797	5922	6047	6172	6297	6423	6548	6673	6798	6923	
73	7048	7173	7298	7423	7548	7673	7798	7923	8048	8173	
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78	3296	3421	3546	3670	3795	3920	4045	4170	4295	4419	
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82	8288	8412	8537	8662	8787	8911	9036	9161	9285	9410	
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84	542 0781	0906	1031	1155	1280	1405	1529	1654	1779	1903	
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87	4519	4644	4769	4893	5018	5142	5267	5391	5516	5640	124 1 12.4 2 24.8 3 37.2 4 49.6 5 62.0 6 74.4 7 86.8 8 99.2 9 111.6
88	5765	5889	6014	6138	6263	6387	6512	6636	6761	6885	
89	7010	7134	7259	7383	7508	7632	7756	7881	8005	8130	
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91	9498	9623	9747	9872	9996	0120	0245	0369	0494	0618	
92	543 0742	0867	0991	1115	1240	1364	1488	1613	1737	1862	
93	1986	2110	2235	2359	2483	2607	2732	2856	2980	3105	
94	3229	3353	3478	3602	3726	3850	3975	4099	4223	4348	
95	4472	4596	4720	4845	4969	5093	5217	5342	5466	5590	
96	5714	5838	5963	6087	6211	6335	6460	6584	6708	6832	
97	6956	7081	7205	7329	7453	7577	7701	7826	7950	8074	
98	8198	8322	8446	8571	8695	8819	8943	9067	9191	9315	
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07	9358	9481	9605	9729	9853	9977	0101	0224	0348	0472
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43	3712	3834	3957	4079	4202	4324	4447	4569	4692	4815
44	4937	5060	5182	5305	5427	5550	5672	5795	5917	6040
45	6162	6285	6407	6530	6652	6775	6897	7020	7142	7265
46	7387	7510	7632	7755	7877	8000	8122	8245	8367	8489
47	8612	8734	8857	8979	9102	9224	9346	9469	9591	9714
48	9836	9959	0081	0203	0326	0448	0570	0693	0815	0938
49	550 1060	1182	1305	1427	1549	1672	1794	1917	2039	2161
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9	112.5

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9	110.7

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54	7174	7296	7419	7541	7663	7785	7907	8030	8152	8274	
55	8396	8518	8640	8763	8885	9007	9129	9251	9373	9495	
56	9618	9740	9862	9984	0106	0228	0350	0472	0594	0717	
57	551 0839	0961	1083	1205	1327	1449	1571	1693	1815	1937	
58	2059	2181	2304	2426	2548	2670	2792	2914	3036	3158	
59	3280	3402	3524	3646	3768	3890	4012	4134	4256	4378	
3560	4500	4622	4744	4866	4988	5110	5232	5354	5476	5598	
61	5720	5842	5964	6086	6208	6329	6451	6573	6695	6817	
62	6939	7061	7183	7305	7427	7549	7671	7793	7914	8036	
63	8158	8280	8402	8524	8646	8768	8890	9011	9133	9255	
64	9377	9499	9621	9743	9864	9986	0108	0230	0352	0474	
65	552 0595	0717	0839	0961	1083	1204	1326	1448	1570	1692	
66	1813	1935	2057	2179	2301	2422	2544	2666	2788	2909	
67	3031	3153	3275	3396	3518	3640	3762	3883	4005	4127	
68	4248	4370	4492	4614	4735	4857	4979	5100	5222	5344	
69	5465	5587	5709	5831	5952	6074	6196	6317	6439	6561	
3570	6682	6804	6925	7047	7169	7290	7412	7534	7655	7777	
71	7899	8020	8142	8263	8385	8507	8628	8750	8871	8993	
72	9115	9236	9358	9479	9601	9722	9844	9965	0087	0209	
73	553 0330	0452	0573	0695	0816	0938	1059	1181	1302	1424	
74	1545	1667	1789	1910	2032	2153	2275	2396	2517	2639	
75	2760	2882	3003	3125	3246	3368	3489	3611	3732	3854	
76	3975	4097	4218	4339	4461	4582	4704	4825	4947	5068	
77	5189	5311	5432	5554	5675	5796	5918	6039	6161	6282	
78	6403	6525	6646	6767	6889	7010	7132	7253	7374	7496	
79	7617	7738	7860	7981	8102	8224	8345	8466	8588	8709	
3580	8830	8952	9073	9194	9315	9437	9558	9679	9801	9922	
81	554 0043	0164	0286	0407	0528	0650	0771	0892	1013	1135	
82	1256	1377	1498	1620	1741	1862	1983	2104	2226	2347	
83	2468	2589	2710	2832	2953	3074	3195	3316	3438	3559	
84	3680	3801	3922	4044	4165	4286	4407	4528	4649	4770	
85	4892	5013	5134	5255	5376	5497	5618	5740	5861	5982	
86	6103	6224	6345	6466	6587	6708	6829	6951	7072	7193	
87	7314	7435	7556	7677	7798	7919	8040	8161	8282	8403	
88	8524	8645	8766	8887	9008	9130	9251	9372	9493	9614	
89	9735	9856	9977	0098	0219	0340	0461	0582	0703	0824	
3590	555 0944	1065	1186	1307	1428	1549	1670	1791	1912	2033	
91	2154	2275	2396	2517	2638	2759	2880	3001	3121	3242	
92	3363	3484	3605	3726	3847	3968	4089	4210	4330	4451	
93	4572	4693	4814	4935	5056	5176	5297	5418	5539	5660	
94	5781	5902	6022	6143	6264	6385	6506	6627	6747	6868	
95	6989	7110	7231	7351	7472	7593	7714	7835	7955	8076	
96	8197	8318	8438	8559	8680	8801	8921	9042	9163	9284	
97	9404	9525	9646	9767	9887	0008	0129	0249	0370	0491	
98	556 0612	0732	0853	0974	1094	1215	1336	1456	1577	1698	
99	1818	1939	2060	2180	2301	2422	2542	2663	2784	2904	
3600	3025	3146	3266	3387	3508	3628	3749	3869	3990	4111	
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02	5437	5558	5678	5799	5919	6040	6160	6281	6402	6522	
03	6643	6763	6884	7004	7125	7245	7366	7486	7607	7727	
04	7848	7968	8089	8209	8330	8450	8571	8691	8812	8932	
05	9053	9173	9294	9414	9535	9655	9775	9896	0016	0137	
06	557 0257	0378	0498	0619	0739	0859	0980	1100	1221	1341	
07	1461	1582	1702	1823	1943	2063	2184	2304	2425	2545	121
08	2665	2786	2906	3026	3147	3267	3387	3508	3628	3748	1 12.1
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11	6275	6395	6515	6636	6756	6876	6996	7117	7237	7357	4 48.4
12	7477	7598	7718	7838	7958	8079	8199	8319	8439	8559	5 60.5
13	8680	8800	8920	9040	9160	9281	9401	9521	9641	9761	6 72.6
14	9881	0002	0122	0242	0362	0482	0602	0723	0843	0963	7 84.7
15	558 1083	1203	1323	1443	1564	1684	1804	1924	2044	2164	8 96.8
16	2284	2404	2524	2645	2765	2885	3005	3125	3245	3365	9 108.9
17	3485	3605	3725	3845	3965	4085	4205	4325	4446	4566	
18	4686	4806	4926	5046	5166	5286	5406	5526	5646	5766	
19	5886	6006	6126	6246	6366	6486	6606	6726	6846	6966	
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21	8285	8405	8525	8645	8765	8885	9005	9125	9245	9365	120
22	9484	9604	9724	9844	9964	0084	0204	0324	0444	0563	1 12.0
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24	1882	2002	2122	2241	2361	2481	2601	2721	2840	2960	3 36.0
25	3080	3200	3320	3440	3559	3679	3799	3919	4038	4158	4 48.0
26	4278	4398	4518	4637	4757	4877	4997	5116	5236	5356	5 60.0
27	5476	5595	5715	5835	5954	6074	6194	6314	6433	6553	6 72.0
28	6673	6792	6912	7032	7152	7271	7391	7511	7630	7750	7 84.0
29	7870	7989	8109	8229	8348	8468	8588	8707	8827	8947	8 96.0
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31	560 0262	0382	0502	0621	0741	0860	0980	1100	1219	1339	
32	1458	1578	1698	1817	1937	2056	2176	2295	2415	2534	
33	2654	2774	2893	3013	3132	3252	3371	3491	3610	3730	
34	3849	3969	4088	4208	4327	4447	4566	4686	4805	4925	
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36	6239	6358	6478	6597	6716	6836	6955	7075	7194	7314	119
37	7433	7552	7672	7791	7911	8030	8149	8269	8388	8508	1 11.9
38	8627	8746	8866	8985	9104	9224	9343	9463	9582	9701	2 23.8
39	9821	9940	0059	0179	0298	0417	0537	0656	0775	0895	3 35.7
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41	2207	2326	2445	2565	2684	2803	2922	3042	3161	3280	5 59.5
42	3399	3519	3638	3757	3876	3996	4115	4234	4353	4472	6 71.4
43	4592	4711	4830	4949	5069	5188	5307	5426	5545	5665	7 83.3
44	5784	5903	6022	6141	6260	6380	6499	6618	6737	6856	8 95.2
45	6975	7094	7214	7333	7452	7571	7690	7809	7928	8048	9 107.1
46	8167	8286	8405	8524	8643	8762	8881	9000	9119	9239	
47	9358	9477	9596	9715	9834	9953	0072	0191	0310	0429	
48	562 0548	0667	0786	0905	1024	1144	1263	1382	1501	1620	
49	1739	1858	1977	2096	2215	2334	2453	2572	2691	2810	
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52	5308	5427	5546	5664	5783	5902	6021	6140	6259	6378	
53	6497	6616	6734	6853	6972	7091	7210	7329	7448	7567	
54	7685	7804	7923	8042	8161	8280	8398	8517	8636	8755	
55	8874	8993	9111	9230	9349	9468	9587	9705	9824	9943	
56	563 0062	0181	0299	0418	0537	0656	0775	0893	1012	1131	
57	1250	1368	1487	1606	1725	1843	1962	2081	2200	2318	119
58	2437	2556	2674	2793	2912	3031	3149	3268	3387	3505	1 11.9
59	3624	3743	3861	3980	4099	4218	4336	4455	4574	4692	2 23.8
3660	4811	4930	5048	5167	5285	5404	5523	5641	5760	5879	3 35.7
61	5997	6116	6235	6353	6472	6590	6709	6828	6946	7065	4 47.6
62	7183	7302	7421	7539	7658	7776	7895	8013	8132	8251	5 59.5
63	8369	8488	8606	8725	8843	8962	9081	9199	9318	9436	6 71.4
64	9555	9673	9792	9910	0029	0147	0266	0384	0503	0621	7 83.3
65	564 0740	0858	0977	1095	1214	1332	1451	1569	1688	1806	8 95.2
66	1925	2043	2162	2280	2398	2517	2635	2754	2872	2991	9 107.1
67	3109	3228	3346	3464	3583	3701	3820	3938	4056	4175	
68	4293	4412	4530	4648	4767	4885	5004	5122	5240	5359	
69	5477	5595	5714	5832	5951	6069	6187	6306	6424	6542	
3670	6661	6779	6897	7016	7134	7252	7371	7489	7607	7726	
71	7844	7962	8080	8199	8317	8435	8554	8672	8790	8908	118
72	9027	9145	9263	9382	9500	9618	9736	9855	9973	0091	1 11.8
73	565 0209	0328	0446	0564	0682	0800	0919	1037	1155	1273	2 23.6
74	1392	1510	1628	1746	1864	1983	2101	2219	2337	2455	3 35.4
75	2573	2692	2810	2928	3046	3164	3282	3401	3519	3637	4 47.2
76	3755	3873	3991	4109	4228	4346	4464	4582	4700	4818	5 59.0
77	4936	5054	5173	5291	5409	5527	5645	5763	5881	5999	6 70.8
78	6117	6235	6353	6471	6590	6708	6826	6944	7062	7180	7 82.6
79	7298	7416	7534	7652	7770	7888	8006	8124	8242	8360	8 94.4
3680	8478	8596	8714	8832	8950	9068	9186	9304	9422	9540	9 106.2
81	9658	9776	9894	0012	0130	0248	0366	0484	0602	0720	
82	566 0838	0956	1074	1192	1310	1428	1545	1663	1781	1899	
83	2017	2135	2253	2371	2489	2607	2725	2843	2960	3078	
84	3196	3314	3432	3550	3668	3786	3903	4021	4139	4257	
85	4375	4493	4611	4728	4846	4964	5082	5200	5318	5435	
86	5553	5671	5789	5907	6025	6142	6260	6378	6496	6614	117
87	6731	6849	6967	7085	7203	7320	7438	7556	7674	7791	1 11.7
88	7909	8027	8145	8262	8380	8498	8616	8733	8851	8969	2 23.4
89	9087	9204	9322	9440	9557	9675	9793	9911	0028	0146	3 35.1
3690	567 0264	0381	0499	0617	0734	0852	0970	1087	1205	1323	4 46.8
91	1440	1558	1676	1793	1911	2029	2146	2264	2382	2499	5 58.5
92	2617	2735	2852	2970	3087	3205	3323	3440	3558	3675	6 70.2
93	3793	3911	4028	4146	4263	4381	4499	4616	4734	4851	7 81.9
94	4969	5086	5204	5322	5439	5557	5674	5792	5909	6027	8 93.6
95	6144	6262	6379	6497	6615	6732	6850	6967	7085	7202	9 105.3
96	7320	7437	7555	7672	7790	7907	8025	8142	8260	8377	
97	8495	8612	8729	8847	8964	9082	9199	9317	9434	9552	
98	9669	9787	9904	0021	0139	0256	0374	0491	0608	0726	
99	568 0843	0961	1078	1196	1313	1430	1548	1665	1782	1900	
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01	3191	3308	3426	3543	3660	3778	3895	4012	4130	4247	
02	4364	4481	4599	4716	4833	4951	5068	5185	5303	5420	
03	5537	5654	5772	5889	6006	6123	6241	6358	6475	6593	
04	6710	6827	6944	7062	7179	7296	7413	7530	7648	7765	
05	7882	7999	8117	8234	8351	8468	8585	8703	8820	8937	
06	9054	9171	9289	9406	9523	9640	9757	9874	9992	0109	
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07	569 0226	0343	0460	0577	0694	0812	0929	1046	1163	1280	1 11.8
08	1397	1514	1631	1749	1866	1983	2100	2217	2334	2451	2 23.6
09	2568	2685	2803	2920	3037	3154	3271	3388	3505	3622	3 35.4
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											5 59.0
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12	6080	6197	6314	6431	6548	6665	6782	6899	7016	7133	7 82.6
13	7249	7366	7483	7600	7717	7834	7951	8068	8185	8302	8 94.4
14	8419	8536	8653	8770	8887	9004	9121	9237	9354	9471	9 106.2
15	9588	9705	9822	9939	0056	0173	0290	0406	0523	0640	
16	570 0757	0874	0991	1108	1225	1341	1458	1575	1692	1809	
17	1926	2042	2159	2276	2393	2510	2627	2743	2860	2977	
18	3094	3211	3327	3444	3561	3678	3795	3911	4028	4145	
19	4262	4379	4495	4612	4729	4846	4962	5079	5196	5313	
3720	5429	5546	5663	5780	5896	6013	6130	6247	6363	6480	
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21	6597	6713	6830	6947	7064	7180	7297	7414	7530	7647	1 11.7
22	7764	7880	7997	8114	8230	8347	8464	8580	8697	8814	2 23.4
23	8930	9047	9164	9280	9397	9514	9630	9747	9863	9980	3 35.1
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25	1263	1379	1496	1613	1729	1846	1962	2079	2195	2312	5 58.5
26	2429	2545	2662	2778	2895	3011	3128	3244	3361	3477	6 70.2
27	3594	3710	3827	3943	4060	4177	4293	4410	4526	4643	7 81.9
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29	5924	6040	6157	6273	6390	6506	6623	6739	6855	6972	9 105 3
3730	7088	7205	7321	7438	7554	7670	7787	7903	8020	8136	
31	8252	8369	8485	8602	8718	8834	8951	9067	9184	9300	
32	9416	9533	9649	9765	9882	9998	0115	0231	0347	0464	
33	572 0580	0696	0813	0929	1045	1162	1278	1394	1511	1627	
34	1743	1859	1976	2092	2208	2325	2441	2557	2674	2790	
35	2906	3022	3139	3255	3371	3487	3604	3720	3836	3952	
36	4069	4185	4301	4417	4534	4650	4766	4882	4999	5115	
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37	5231	5347	5463	5580	5696	5812	5928	6044	6161	6277	1 11.6
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											5 58.0
41	9877	9993	0109	0225	0341	0457	0574	0690	0806	0922	6 69.6
42	573 1038	1154	1270	1386	1502	1618	1734	1850	1966	2082	7 81.2
43	2198	2314	2430	2546	2662	2778	2894	3010	3126	3242	8 92.8
44	3358	3474	3590	3706	3822	3938	4054	4170	4286	4402	9 104.4
45	4518	4634	4750	4866	4982	5098	5214	5330	5446	5562	
46	5678	5794	5910	6026	6141	6257	6373	6489	6605	6721	
47	6837	6953	7069	7185	7301	7416	7532	7648	7764	7880	
48	7996	8112	8228	8343	8459	8575	8691	8807	8923	9039	
49	9154	9270	9386	9502	9618	9734	9849	9965	0081	0197	
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52	2628	2744	2860	2976	3091	3207	3323	3438	3554	3670	
53	3786	3901	4017	4133	4248	4364	4480	4596	4711	4827	
54	4943	5058	5174	5290	5405	5521	5637	5752	5868	5984	
55	6099	6215	6331	6446	6562	6678	6793	6909	7025	7140	
56	7256	7371	7487	7603	7718	7834	7950	8065	8181	8296	
57	8412	8528	8643	8759	8874	8990	9105	9221	9337	9452	116
58	9568	9683	9799	9914	0030	0146	0261	0377	0492	0608	1 11.6
59	575 0723	0839	0954	1070	1185	1301	1416	1532	1647	1763	2 23.2
3760	1878	1994	2109	2225	2340	2456	2571	2687	2802	2918	3 34.8
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62	4188	4303	4419	4534	4650	4765	4881	4996	5111	5227	5 58.0
63	5342	5458	5573	5688	5804	5919	6035	6150	6265	6381	6 69.6
64	6496	6612	6727	6842	6958	7073	7188	7304	7419	7534	7 81.2
65	7650	7765	7881	7996	8111	8227	8342	8457	8573	8688	8 92.8
66	8803	8918	9034	9149	9264	9380	9495	9610	9726	9841	9 104.4
67	9956	0071	0187	0302	0417	0533	0648	0763	0878	0994	
68	576 1109	1224	1339	1455	1570	1685	1800	1916	2031	2146	
69	2261	2377	2492	2607	2722	2837	2953	3068	3183	3298	
3770	3414	3529	3644	3759	3874	3989	4105	4220	4335	4450	
71	4565	4680	4796	4911	5026	5141	5256	5371	5487	5602	115
72	5717	5832	5947	6062	6177	6292	6408	6523	6638	6753	1 11.5
73	6868	6983	7098	7213	7328	7444	7559	7674	7789	7904	2 23.0
74	8019	8134	8249	8364	8479	8594	8709	8824	8939	9055	3 34.5
75	9170	9285	9400	9515	9630	9745	9860	9975	0090	0205	4 46.0
76	577 0320	0435	0550	0665	0780	0895	1010	1125	1240	1355	5 57.5
77	1470	1585	1700	1815	1930	2045	2160	2275	2390	2505	6 69.0
78	2620	2734	2849	2964	3079	3194	3309	3424	3539	3654	7 80.5
79	3769	3884	3999	4114	4229	4343	4458	4573	4688	4803	8 92.0
3780	4918	5033	5148	5263	5378	5492	5607	5722	5837	5952	9 103.5
81	6067	6182	6296	6411	6526	6641	6756	6871	6986	7100	
82	7215	7330	7445	7560	7675	7789	7904	8019	8134	8249	
83	8363	8478	8593	8708	8823	8937	9052	9167	9282	9397	
84	9511	9626	9741	9856	9970	0085	0200	0315	0429	0544	
85	578 0659	0774	0888	1003	1118	1233	1347	1462	1577	1691	
86	1806	1921	2036	2150	2265	2380	2494	2609	2724	2838	114
87	2953	3068	3182	3297	3412	3526	3641	3756	3870	3985	1 11.4
88	4100	4214	4329	4444	4558	4673	4788	4902	5017	5131	2 22.8
89	5246	5361	5475	5590	5705	5819	5934	6048	6163	6278	3 34.2
3790	6392	6507	6621	6736	6850	6965	7080	7194	7309	7423	4 45.6
91	7538	7652	7767	7882	7996	8111	8225	8340	8454	8569	5 57.0
92	8683	8798	8912	9027	9141	9256	9370	9485	9599	9714	6 68.4
93	9828	9943	0057	0172	0286	0401	0515	0630	0744	0859	7 79.8
94	579 0973	1088	1202	1317	1431	1546	1660	1774	1889	2003	8 91.2
95	2118	2232	2347	2461	2576	2690	2804	2919	3033	3148	9 102.6
96	3262	3376	3491	3605	3720	3834	3948	4063	4177	4292	
97	4406	4520	4635	4749	4863	4978	5092	5207	5321	5435	
98	5550	5664	5778	5893	6007	6121	6236	6350	6464	6579	
99	6693	6807	6922	7036	7150	7264	7379	7493	7607	7722	
3800	7836	7950	8065	8179	8293	8407	8522	8636	8750	8864	
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3800	579 7836	7950	8065	8179	8293	8407	8522	8636	8750	8864	
01	8979	9093	9207	9321	9436	9550	9664	9778	9893	0007	115
02	580 0121	0235	0350	0464	0578	0692	0806	0921	1035	1149	1 11.5
03	1263	1377	1492	1606	1720	1834	1948	2063	2177	2291	2 23.0
04	2405	2519	2633	2748	2862	2976	3090	3204	3318	3432	3 34.5
05	3547	3661	3775	3889	4003	4117	4231	4346	4460	4574	4 46.0
06	4688	4802	4916	5030	5144	5258	5372	5487	5601	5715	5 57.5
07	5829	5943	6057	6171	6285	6399	6513	6627	6741	6855	6 69.0
08	6969	7083	7197	7312	7426	7540	7654	7768	7882	7996	7 80.5
09	8110	8224	8338	8452	8566	8680	8794	8908	9022	9136	8 92.0
3810	9250	9364	9478	9592	9706	9820	9934	0048	0162	0276	9 103.5
11	581 0389	0503	0617	0731	0845	0959	1073	1187	1301	1415	
12	1529	1643	1757	1871	1985	2099	2212	2326	2440	2554	
13	2668	2782	2896	3010	3124	3238	3351	3465	3579	3693	
14	3807	3921	4035	4148	4262	4376	4490	4604	4718	4832	
15	4945	5059	5173	5287	5401	5515	5628	5742	5856	5970	
16	6084	6197	6311	6425	6539	6653	6766	6880	6994	7108	
17	7222	7335	7449	7563	7677	7790	7904	8018	8132	8245	
18	8359	8473	8587	8700	8814	8928	9042	9155	9269	9383	
19	9497	9610	9724	9838	9951	0065	0179	0293	0406	0520	
3820	582 0634	0747	0861	0975	1088	1202	1316	1429	1543	1657	
21	1770	1884	1998	2111	2225	2339	2452	2566	2680	2793	114
22	2907	3020	3134	3248	3361	3475	3589	3702	3816	3929	1 11.4
23	4043	4157	4270	4384	4497	4611	4725	4838	4952	5065	2 22.8
24	5179	5292	5406	5520	5633	5747	5860	5974	6087	6201	3 34.2
25	6314	6428	6541	6655	6769	6882	6996	7109	7223	7336	4 45.6
26	7450	7563	7677	7790	7904	8017	8131	8244	8358	8471	5 57.0
27	8585	8698	8812	8925	9039	9152	9265	9379	9492	9606	6 68.4
28	9719	9833	9946	0060	0173	0287	0400	0513	0627	0740	7 79.8
29	583 0854	0967	1081	1194	1307	1421	1534	1648	1761	1874	8 91.2
3830	1988	2101	2215	2328	2441	2555	2668	2781	2895	3008	9 102.6
31	3122	3235	3348	3462	3575	3688	3802	3915	4028	4142	
32	4255	4368	4482	4595	4708	4822	4935	5048	5162	5275	
33	5388	5501	5615	5728	5841	5955	6068	6181	6295	6408	
34	6521	6634	6748	6861	6974	7087	7201	7314	7427	7540	
35	7654	7767	7880	7993	8107	8220	8333	8446	8560	8673	
36	8786	8899	9012	9126	9239	9352	9465	9578	9692	9805	
37	9918	0031	0144	0258	0371	0484	0597	0710	0823	0937	113
38	584 1050	1163	1276	1389	1502	1615	1729	1842	1955	2068	1 11.3
39	2181	2294	2407	2520	2634	2747	2860	2973	3086	3199	2 22.6
3840	3312	3425	3538	3652	3765	3878	3991	4104	4217	4330	3 33.9
41	4443	4556	4669	4782	4895	5008	5121	5234	5348	5461	4 45.2
42	5574	5687	5800	5913	6026	6139	6252	6365	6478	6591	5 56.5
43	6704	6817	6930	7043	7156	7269	7382	7495	7608	7721	6 67.8
44	7834	7947	8060	8173	8286	8399	8512	8625	8738	8850	7 79.1
45	8963	9076	9189	9302	9415	9528	9641	9754	9867	9980	8 90.4
46	585 0093	0206	0319	0432	0544	0657	0770	0883	0996	1109	9 101.7
47	1222	1335	1448	1561	1673	1786	1899	2012	2125	2238	
48	2351	2463	2576	2689	2802	2915	3028	3141	3253	3366	
49	3479	3592	3705	3818	3930	4043	4156	4269	4382	4494	
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3850	585 1607	4720	4833	4946	5058	5171	5284	5397	5510	5622	
51	5735	5848	5961	6073	6186	6299	6412	6525	6637	6750	
52	6863	6976	7088	7201	7314	7426	7539	7652	7765	7877	
53	7990	8103	8216	8328	8441	8554	8666	8779	8892	9004	
54	9117	9230	9342	9455	9568	9681	9793	9906	0019	0131	
55	586 0244	0356	0469	0582	0694	0807	0920	1032	1145	1258	
56	1370	1483	1596	1708	1821	1933	2046	2159	2271	2384	
57	2496	2609	2722	2834	2947	3059	3172	3285	3397	3510	113
58	3622	3735	3847	3960	4072	4185	4298	4410	4523	4635	1 11.3
59	4748	4860	4973	5085	5198	5310	5423	5535	5648	5761	2 22.6
3860	5873	5986	6098	6211	6323	6436	6548	6661	6773	6886	3 33.9
61	6998	7110	7223	7335	7448	7560	7673	7785	7898	8010	4 45.2
62	8123	8235	8348	8460	8572	8685	8797	8910	9022	9135	5 56.5
63	9247	9360	9472	9584	9697	9809	9922	0034	0146	0259	6 67.8
64	587 0371	0484	0596	0708	0821	0933	1045	1158	1270	1383	7 79.1
65	1495	1607	1720	1832	1944	2057	2169	2281	2394	2506	8 90.4
66	2618	2731	2843	2955	3068	3180	3292	3405	3517	3629	9 101.7
67	3742	3854	3966	4079	4191	4303	4416	4528	4640	4752	
68	4865	4977	5089	5201	5314	5426	5538	5651	5763	5875	
69	5987	6100	6212	6324	6436	6549	6661	6773	6885	6997	
3870	7110	7222	7334	7446	7559	7671	7783	7895	8007	8120	
71	8232	8344	8456	8568	8680	8793	8905	9017	9129	9241	112
72	9353	9466	9578	9690	9802	9914	0026	0139	0251	0363	1 11.2
73	588 0473	0587	0699	0811	0923	1036	1148	1260	1372	1484	2 22.4
74	1596	1708	1820	1932	2045	2157	2269	2381	2493	2605	3 33.6
75	2717	2829	2941	3053	3165	3277	3389	3502	3614	3726	4 44.8
76	3838	3950	4062	4174	4286	4398	4510	4622	4734	4846	5 56.0
77	4958	5070	5182	5294	5406	5518	5630	5742	5854	5966	6 67.2
78	6078	6190	6302	6414	6526	6638	6750	6862	6974	7086	7 78.4
79	7198	7310	7422	7534	7646	7758	7870	7981	8093	8205	8 89.6
3880	8317	8429	8541	8653	8765	8877	8989	9101	9213	9325	9 100.8
81	9436	9548	9660	9772	9884	9996	0108	0220	0332	0443	
82	589 0555	0667	0779	0891	1003	1115	1227	1338	1450	1562	
83	1674	1786	1898	2009	2121	2233	2345	2457	2569	2680	
84	2792	2904	3016	3128	3239	3351	3463	3575	3687	3798	
85	3910	4022	4134	4246	4357	4469	4581	4693	4804	4916	
86	5028	5140	5251	5363	5475	5587	5698	5810	5922	6034	111
87	6145	6257	6369	6481	6592	6704	6816	6927	7039	7151	1 11.1
88	7263	7374	7486	7598	7709	7821	7933	8044	8156	8268	2 22.2
89	8379	8491	8603	8714	8826	8938	9049	9161	9273	9384	3 33.3
3890	9496	9608	9719	9831	9943	0054	0166	0277	0389	0501	4 44.4
91	590 0612	0724	0836	0947	1059	1170	1282	1394	1505	1617	5 55.5
92	1728	1840	1951	2063	2175	2286	2398	2509	2621	2732	6 66.6
93	2844	2956	3067	3179	3290	3402	3513	3625	3736	3848	7 77.7
94	3959	4071	4183	4294	4406	4517	4629	4740	4852	4963	8 88.8
95	5075	5186	5298	5409	5521	5632	5744	5855	5967	6078	9 99.9
96	6189	6301	6412	6524	6635	6747	6858	6970	7081	7193	
97	7304	7415	7527	7638	7750	7861	7973	8084	8196	8307	
98	8418	8530	8641	8753	8864	8975	9087	9198	9310	9421	
99	9532	9644	9755	9866	9978	0089	0201	0312	0423	0535	
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3900	591 0646	0757	0869	0980	1091	1203	1314	1426	1537	1648	
01	1760	1871	1982	2093	2205	2316	2427	2539	2650	2761	
02	2873	2984	3095	3207	3318	3429	3540	3652	3763	3874	
03	3986	4097	4208	4319	4431	4542	4653	4764	4876	4987	
04	5098	5209	5321	5432	5543	5654	5765	5877	5988	6099	
05	6210	6322	6433	6544	6655	6766	6878	6989	7100	7211	
06	7322	7434	7545	7656	7767	7878	7989	8101	8212	8323	
07	8434	8545	8656	8768	8879	8990	9101	9212	9323	9434	112 1 11.2 2 22.4 3 33.6 4 44.8 5 56.0 6 67.2 7 78.4 8 89.6 9 100.8
08	9546	9657	9768	9879	9990	0101	0212	0323	0434	0546	
09	592 0657	0768	0879	0990	1101	1212	1323	1434	1545	1656	
3910	1768	1879	1990	2101	2212	2323	2434	2545	2656	2767	
11	2878	2989	3100	3211	3322	3433	3544	3655	3766	3877	
12	3988	4099	4210	4321	4433	4544	4655	4766	4876	4987	
13	5098	5209	5320	5431	5542	5653	5764	5875	5986	6097	
14	6208	6319	6430	6541	6652	6763	6874	6985	7096	7207	
15	7318	7429	7540	7650	7761	7872	7983	8094	8205	8316	
16	8427	8538	8649	8760	8870	8981	9092	9203	9314	9425	
17	9536	9647	9757	9868	9979	0090	0201	0312	0423	0533	
18	593 0644	0755	0866	0977	1088	1199	1309	1420	1531	1642	
19	1753	1863	1974	2085	2196	2307	2417	2528	2639	2750	
3920	2861	2971	3082	3193	3304	3415	3525	3636	3747	3858	
21	3968	4079	4190	4301	4411	4522	4633	4744	4854	4965	111 1 11.1 2 22.2 3 33.3 4 44.4 5 55.5 6 66.6 7 77.7 8 88.8 9 99.9
22	5076	5187	5297	5408	5519	5630	5740	5851	5962	6072	
23	6183	6294	6404	6515	6626	6737	6847	6958	7069	7179	
24	7290	7401	7511	7622	7733	7843	7954	8065	8175	8286	
25	8397	8507	8618	8729	8839	8950	9060	9171	9282	9392	
26	9503	9614	9724	9835	9945	0056	0167	0277	0388	0498	
27	594 0609	0720	0830	0941	1051	1162	1273	1383	1494	1604	
28	1715	1825	1936	2046	2157	2268	2378	2489	2599	2710	
29	2820	2931	3041	3152	3262	3373	3483	3594	3704	3815	
3930	3926	4036	4147	4257	4368	4478	4588	4699	4809	4920	
31	5030	5141	5251	5362	5472	5583	5693	5804	5914	6025	
32	6135	6246	6356	6466	6577	6687	6798	6908	7019	7129	
33	7239	7350	7460	7571	7681	7792	7902	8012	8123	8233	
34	8344	8454	8564	8675	8785	8895	9006	9116	9227	9337	
35	9447	9558	9668	9778	9889	9999	0110	0220	0330	0441	
36	595 0551	0661	0772	0882	0992	1103	1213	1323	1434	1544	110 1 11.0 2 22.0 3 33.0 4 44.0 5 55.0 6 66.0 7 77.0 8 88.0 9 99.0
37	1654	1764	1875	1985	2095	2206	2316	2426	2537	2647	
38	2757	2867	2978	3088	3198	3308	3419	3529	3639	3750	
39	3860	3970	4080	4191	4301	4411	4521	4632	4742	4852	
3940	4962	5072	5183	5293	5403	5513	5624	5734	5844	5954	
41	6064	6175	6285	6395	6505	6615	6725	6836	6946	7056	
42	7166	7276	7387	7497	7607	7717	7827	7937	8047	8158	
43	8268	8378	8488	8598	8708	8818	8929	9039	9149	9259	
44	9369	9479	9589	9699	9810	9920	0030	0140	0250	0360	
45	596 0470	0580	0690	0800	0910	1020	1131	1241	1351	1461	
46	1571	1681	1791	1901	2011	2121	2231	2341	2451	2561	
47	2671	2781	2891	3001	3111	3221	3331	3441	3551	3661	
48	3771	3881	3991	4101	4211	4321	4431	4541	4651	4761	
49	4871	4981	5091	5201	5311	5421	5531	5641	5751	5861	
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51	7070	7180	7290	7400	7510	7620	7730	7840	7950	8059	
52	8169	8279	8389	8499	8609	8719	8829	8939	9048	9158	
53	9268	9378	9488	9598	9708	9817	9927	0037	0147	0257	
54	597 0367	0476	0586	0696	0806	0916	1026	1135	1245	1355	
55	1465	1575	1684	1794	1904	2014	2124	2233	2343	2453	
56	2563	2673	2782	2892	3002	3112	3221	3331	3441	3551	
57	3661	3770	3880	3990	4099	4209	4319	4429	4538	4648	110
58	4758	4868	4977	5087	5197	5306	5416	5526	5636	5745	1 11.0
59	5855	5965	6074	6184	6294	6403	6513	6623	6733	6842	2 22.0
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61	8048	8158	8268	8377	8487	8597	8706	8816	8925	9035	4 44.0
62	9145	9254	9364	9474	9583	9693	9802	9912	0022	0131	5 55.0
63	598 0241	0350	0460	0569	0679	0789	0898	1008	1117	1227	6 66.0
64	1336	1446	1556	1665	1775	1884	1994	2103	2213	2322	7 77.0
65	2432	2541	2651	2761	2870	2980	3089	3199	3308	3418	8 88.0
66	3527	3637	3746	3856	3965	4075	4184	4294	4403	4513	9 99.0
67	4622	4731	4841	4950	5060	5169	5279	5388	5498	5607	
68	5717	5826	5936	6045	6154	6264	6373	6483	6592	6702	
69	6811	6920	7030	7139	7249	7358	7467	7577	7686	7796	
3970	7905	8014	8124	8233	8343	8452	8561	8671	8780	8890	
71	8999	9108	9218	9327	9436	9546	9655	9764	9874	9983	109
72	599 0092	0202	0311	0420	0530	0639	0748	0858	0967	1076	1 10.9
73	1186	1295	1404	1514	1623	1732	1841	1951	2060	2169	2 21.8
74	2279	2388	2497	2606	2716	2825	2934	3044	3153	3262	3 32.7
75	3371	3481	3590	3699	3808	3918	4027	4136	4245	4355	4 43.6
76	4464	4573	4682	4791	4901	5010	5119	5228	5338	5447	5 54.5
77	5556	5665	5774	5884	5993	6102	6211	6320	6429	6539	6 65.4
78	6648	6757	6866	6975	7084	7194	7303	7412	7521	7630	7 76.3
79	7739	7849	7958	8067	8176	8285	8394	8503	8612	8722	8 87.2
3980	8831	8940	9049	9158	9267	9376	9485	9594	9704	9813	9 98.1
81	9922	0031	0140	0249	0358	0467	0576	0685	0794	0903	
82	600 1013	1122	1231	1340	1449	1558	1667	1776	1885	1994	
83	2103	2212	2321	2430	2539	2648	2757	2866	2975	3084	
84	3193	3302	3411	3520	3629	3738	3847	3956	4065	4174	
85	4283	4392	4501	4610	4719	4828	4937	5046	5155	5264	
86	5373	5482	5591	5700	5809	5918	6027	6136	6244	6353	108
87	6462	6571	6680	6789	6898	7007	7116	7225	7334	7443	1 10.8
88	7551	7660	7769	7878	7987	8096	8205	8314	8423	8531	2 21.6
89	8640	8749	8858	8967	9076	9185	9294	9402	9511	9620	3 32.4
3990	9729	9838	9947	0055	0164	0273	0382	0491	0600	0708	4 43.2
91	601 0817	0926	1035	1144	1253	1361	1470	1579	1688	1797	5 54.0
92	1905	2014	2123	2232	2340	2449	2558	2667	2776	2884	6 64.8
93	2993	3102	3211	3319	3428	3537	3646	3754	3863	3972	7 75.6
94	4081	4189	4298	4407	4516	4624	4733	4842	4950	5059	8 86.4
95	5168	5277	5385	5494	5603	5711	5820	5929	6037	6146	9 97.2
96	6255	6363	6472	6581	6690	6798	6907	7016	7124	7233	
97	7341	7450	7559	7667	7776	7885	7993	8102	8211	8319	
98	8428	8537	8645	8754	8862	8971	9080	9188	9297	9405	
99	9514	9623	9731	9840	9948	0057	0166	0274	0383	0491	
4000	602 0600	0708	0817	0926	1034	1143	1251	1360	1468	1577	
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01	1686	1794	1903	2011	2120	2228	2337	2445	2554	2662	
02	2771	2879	2988	3096	3205	3313	3422	3530	3639	3747	
03	3856	3964	4073	4181	4290	4398	4507	4615	4724	4832	
04	4941	5049	5158	5266	5375	5483	5591	5700	5808	5917	
05	6025	6134	6242	6351	6459	6567	6676	6784	6893	7001	
06	7109	7218	7326	7435	7543	7651	7760	7868	7977	8085	
07	8193	8302	8410	8519	8627	8735	8844	8952	9060	9169	109
08	9277	9385	9494	9602	9711	9819	9927	$\bar{0}036$	$\bar{0}144$	$\bar{0}252$	1 10.9
09	603 0361	0469	0577	0686	0794	0902	1010	1119	1227	1335	2 21.8
4010	1444	1552	1660	1769	1877	1985	2093	2202	2310	2418	3 32.7
11	2527	2635	2743	2851	2960	3068	3176	3284	3393	3501	4 43.6
12	3609	3717	3826	3934	4042	4150	4259	4367	4475	4583	5 54.5
13	4692	4800	4908	5016	5124	5233	5341	5449	5557	5665	6 65.4
14	5774	5882	5990	6098	6206	6315	6423	6531	6639	6747	7 76.3
15	6855	6964	7072	7180	7288	7396	7504	7613	7721	7829	8 87.2
16	7937	8045	8153	8261	8370	8478	8586	8694	8802	8910	9 98.1
17	9018	9126	9235	9343	9451	9559	9667	9775	9883	9991	
18	604 0099	0207	0315	0424	0532	0640	0748	0856	0964	1072	
19	1180	1288	1396	1504	1612	1720	1828	1936	2044	2152	
4020	2261	2369	2477	2585	2693	2801	2909	3017	3125	3233	
21	3341	3449	3557	3665	3773	3881	3989	4097	4205	4313	108
22	4421	4529	4637	4745	4853	4961	5068	5176	5284	5392	1 10.8
23	5500	5608	5716	5824	5932	6040	6148	6256	6364	6472	2 21.6
24	6580	6688	6796	6903	7011	7119	7227	7335	7443	7551	3 32.4
25	7659	7767	7875	7983	8090	8198	8306	8414	8522	8630	4 43.2
26	8738	8846	8953	9061	9169	9277	9385	9493	9601	9708	5 54.0
27	9816	9924	$\bar{0}032$	$\bar{0}140$	$\bar{0}248$	$\bar{0}355$	$\bar{0}463$	$\bar{0}571$	$\bar{0}679$	$\bar{0}787$	6 64.8
28	605 0895	1002	1110	1218	1326	1434	1541	1649	1757	1865	7 75.6
29	1973	2080	2188	2296	2404	2512	2619	2727	2835	2943	8 86.4
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31	4128	4236	4343	4451	4559	4667	4774	4882	4990	5098	
32	5205	5313	5421	5528	5636	5744	5851	5959	6067	6175	
33	6282	6390	6498	6605	6713	6821	6928	7036	7144	7251	
34	7359	7467	7574	7682	7790	7897	8005	8112	8220	8328	
35	8435	8543	8651	8758	8866	8974	9081	9189	9296	9404	
36	9512	9619	9727	9834	9942	$\bar{0}050$	$\bar{0}157$	$\bar{0}265$	$\bar{0}372$	$\bar{0}480$	107
37	606 0587	0695	0803	0910	1018	1125	1233	1340	1448	1556	1 10.7
38	1663	1771	1878	1986	2093	2201	2308	2416	2523	2631	2 21.4
39	2739	2846	2954	3061	3169	3276	3384	3491	3599	3706	3 32.1
4040	3814	3921	4029	4136	4244	4351	4459	4566	4674	4781	4 42.8
41	4889	4996	5103	5211	5318	5426	5533	5641	5748	5856	5 53.5
42	5963	6071	6178	6285	6393	6500	6608	6715	6823	6930	6 64.2
43	7037	7145	7252	7360	7467	7574	7682	7789	7897	8004	7 74.9
44	8111	8219	8326	8434	8541	8648	8756	8863	8971	9078	8 85.6
45	9185	9293	9400	9507	9615	9722	9829	9937	$\bar{0}044$	$\bar{0}151$	9 96.3
46	607 0259	0366	0473	0581	0688	0795	0903	1010	1117	1225	
47	1332	1439	1547	1654	1761	1869	1976	2083	2190	2298	
48	2405	2512	2620	2727	2834	2941	3049	3156	3263	3371	
49	3478	3585	3692	3800	3907	4014	4121	4229	4336	4443	
4050	4550	4657	4765	4872	4979	5086	5194	5301	5408	5515	
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4050	607 4550	4657	4765	4872	4979	5086	5194	5301	5408	5515	
51	5622	5730	5837	5944	6051	6158	6266	6373	6480	6587	
52	6694	6802	6909	7016	7123	7230	7337	7445	7552	7659	
53	7766	7873	7980	8087	8195	8302	8409	8516	8623	8730	
54	8837	8945	9052	9159	9266	9373	9480	9587	9694	9801	
55	9909	0016	0123	0230	0337	0444	0551	0658	0765	0872	
56	608 0979	1087	1194	1301	1408	1515	1622	1729	1836	1943	
57	2050	2157	2264	2371	2478	2585	2692	2799	2906	3013	107
58	3120	3227	3334	3441	3548	3656	3763	3870	3977	4084	1 10.7
59	4191	4298	4404	4511	4618	4725	4832	4939	5046	5153	2 21.4
4060	5260	5367	5474	5581	5688	5795	5902	6009	6116	6223	3 32.1
61	6330	6437	6544	6651	6758	6865	6972	7078	7185	7292	4 42.8
62	7399	7506	7613	7720	7827	7934	8041	8148	8254	8361	5 53.5
63	8468	8575	8682	8789	8896	9003	9110	9216	9323	9430	6 64.2
64	9537	9644	9751	9858	9964	0071	0178	0285	0392	0499	7 74.9
65	609 0605	0712	0819	0926	1033	1140	1246	1353	1460	1567	8 85.6
66	1674	1781	1887	1994	2101	2208	2315	2421	2528	2635	9 96.3
67	2742	2849	2955	3062	3169	3276	3382	3489	3596	3703	
68	3809	3916	4023	4130	4236	4343	4450	4557	4663	4770	
69	4877	4984	5090	5197	5304	5411	5517	5624	5731	5837	
4070	5944	6051	6157	6264	6371	6478	6584	6691	6798	6904	
71	7011	7118	7224	7331	7438	7544	7651	7758	7864	7971	106
72	8078	8184	8291	8398	8504	8611	8718	8824	8931	9037	1 10.6
73	9144	9251	9357	9464	9571	9677	9784	9890	9997	0104	2 21.2
74	610 0210	0317	0423	0530	0637	0743	0850	0956	1063	1170	3 31.8
75	1276	1383	1489	1596	1702	1809	1916	2022	2129	2235	4 42.4
76	2342	2448	2555	2661	2768	2874	2981	3088	3194	3301	5 53.0
77	3407	3514	3620	3727	3833	3940	4046	4153	4259	4366	6 63.6
78	4472	4579	4685	4792	4898	5005	5111	5218	5324	5431	7 74.2
79	5537	5644	5750	5856	5963	6069	6176	6282	6389	6495	8 84.8
4080	6602	6708	6815	6921	7027	7134	7240	7347	7453	7560	9 95.4
81	7666	7772	7879	7985	8092	8198	8304	8411	8517	8624	
82	8730	8836	8943	9049	9156	9262	9368	9475	9581	9687	
83	9794	9900	0007	0113	0219	0326	0432	0538	0645	0751	
84	611 0857	0964	1070	1176	1283	1389	1495	1602	1708	1814	
85	1921	2027	2133	2240	2346	2452	2558	2665	2771	2877	
86	2984	3090	3196	3302	3409	3515	3621	3728	3834	3940	105
87	4046	4153	4259	4365	4471	4578	4684	4790	4896	5003	1 10.5
88	5109	5215	5321	5428	5534	5640	5746	5852	5959	6065	2 21.0
89	6171	6277	6384	6490	6596	6702	6808	6915	7021	7127	3 31.5
4090	7233	7339	7445	7552	7658	7764	7870	7976	8082	8189	4 42.0
91	8295	8401	8507	8613	8719	8826	8932	9038	9144	9250	5 52.5
92	9356	9462	9569	9675	9781	9887	9993	0099	0205	0311	6 63.0
93	612 0417	0524	0630	0736	0842	0948	1054	1160	1266	1372	7 73.5
94	1478	1584	1691	1797	1903	2009	2115	2221	2327	2433	8 84.0
95	2539	2645	2751	2857	2963	3069	3175	3281	3387	3493	9 94.5
96	3599	3706	3812	3918	4024	4130	4236	4342	4448	4554	
97	4660	4766	4872	4978	5084	5190	5296	5402	5508	5614	
98	5720	5826	5931	6037	6143	6249	6355	6461	6567	6673	
99	6779	6885	6991	7097	7203	7309	7415	7521	7627	7733	
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4100	612 7839	7944	8050	8156	8262	8368	8474	8580	8686	8792	
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02	9957	0062	0168	0274	0380	0486	0592	0698	0803	0909	
03	613 1015	1121	1227	1333	1439	1544	1650	1756	1862	1968	
04	2074	2179	2285	2391	2497	2603	2708	2814	2920	3026	
05	3132	3237	3343	3449	3555	3661	3766	3872	3978	4084	
06	4189	4295	4401	4507	4613	4718	4824	4930	5036	5141	
07	5247	5353	5459	5564	5670	5776	5881	5987	6093	6199	106
08	6304	6410	6516	6621	6727	6833	6939	7044	7150	7256	1 10.6
09	7361	7467	7573	7678	7784	7890	7996	8101	8207	8313	2 21.2
4110	8418	8524	8630	8735	8841	8947	9052	9158	9263	9369	3 31.8
11	9475	9580	9686	9792	9897	0003	0109	0214	0320	0425	4 42.4
12	614 0531	0637	0742	0848	0954	1059	1165	1270	1376	1482	5 53.0
13	1587	1693	1798	1904	2009	2115	2221	2326	2432	2537	6 63.6
14	2643	2748	2854	2960	3065	3171	3276	3382	3487	3593	7 74.2
15	3698	3804	3909	4015	4121	4226	4332	4437	4543	4648	8 84.8
16	4754	4859	4965	5070	5176	5281	5387	5492	5598	5703	9 95.4
17	5809	5914	6020	6125	6231	6336	6442	6547	6652	6758	
18	6863	6969	7074	7180	7285	7391	7496	7602	7707	7812	
19	7918	8023	8129	8234	8340	8445	8550	8656	8761	8867	
4120	8972	9078	9183	9288	9394	9499	9605	9710	9815	9921	
21	615 0026	0132	0237	0342	0448	0553	0658	0764	0869	0975	105
22	1080	1185	1291	1396	1501	1607	1712	1817	1923	2028	1 10.5
23	2133	2239	2344	2449	2555	2660	2765	2871	2976	3081	2 21.0
24	3187	3292	3397	3502	3608	3713	3818	3924	4029	4134	3 31.5
25	4240	4345	4450	4555	4661	4766	4871	4976	5082	5187	4 42.0
26	5292	5397	5503	5608	5713	5818	5924	6029	6134	6239	5 52.5
27	6345	6450	6555	6660	6766	6871	6976	7081	7186	7292	6 63.0
28	7397	7502	7607	7712	7818	7923	8028	8133	8238	8344	7 73.5
29	8449	8554	8659	8764	8870	8975	9080	9185	9290	9395	8 84.0
4130	9501	9606	9711	9816	9921	0026	0131	0237	0342	0447	9 94.5
31	616 0552	0657	0762	0867	0972	1078	1183	1288	1393	1498	
32	1603	1708	1813	1918	2024	2129	2234	2339	2444	2549	
33	2654	2759	2864	2969	3074	3179	3284	3390	3495	3600	
34	3705	3810	3915	4020	4125	4230	4335	4440	4545	4650	
35	4755	4860	4965	5070	5175	5280	5385	5490	5595	5700	
36	5805	5910	6015	6120	6225	6330	6435	6540	6645	6750	
37	6855	6960	7065	7170	7275	7380	7485	7590	7695	7800	104
38	7905	8010	8115	8220	8325	8430	8535	8639	8744	8849	1 10.4
39	8954	9059	9164	9269	9374	9479	9584	9689	9794	9899	2 20.8
4140	617 0003	0108	0213	0318	0423	0528	0633	0738	0843	0947	3 31.2
41	1052	1157	1262	1367	1472	1577	1682	1786	1891	1996	4 41.6
42	2101	2206	2311	2415	2520	2625	2730	2835	2940	3045	5 52.0
43	3149	3254	3359	3464	3569	3673	3778	3883	3988	4093	6 62.4
44	4197	4302	4407	4512	4617	4721	4826	4931	5036	5141	7 72.8
45	5245	5350	5455	5560	5664	5769	5874	5979	6083	6188	8 83.2
46	6293	6398	6502	6607	6712	6817	6921	7026	7131	7236	9 93.6
47	7340	7445	7550	7655	7759	7864	7969	8073	8178	8283	
48	8387	8492	8597	8702	8806	8911	9016	9120	9225	9330	
49	9434	9539	9644	9748	9853	9958	0062	0167	0272	0376	
4150	618 0481	0586	0690	0795	0900	1004	1109	1213	1318	1423	
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51	1527	1632	1737	1841	1946	2050	2155	2260	2364	2469	
52	2573	2678	2783	2887	2992	3096	3201	3306	3410	3515	
53	3619	3724	3828	3933	4038	4142	4247	4351	4456	4560	
54	4665	4769	4874	4979	5083	5188	5292	5397	5501	5606	
55	5710	5815	5919	6024	6128	6233	6337	6442	6546	6651	
56	6755	6860	6964	7069	7173	7278	7382	7487	7591	7696	
57	7800	7905	8009	8114	8218	8323	8427	8531	8636	8740	105
58	8845	8949	9054	9158	9263	9367	9471	9576	9680	9785	1 10.5
59	9889	9994	0098	0202	0307	0411	0516	0620	0725	0829	2 21.0
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61	1977	2082	2186	2290	2395	2499	2603	2708	2812	2916	4 42.0
62	3021	3125	3229	3334	3438	3542	3647	3751	3855	3960	5 52.5
63	4064	4168	4273	4377	4481	4586	4690	4794	4899	5003	6 63.0
64	5107	5212	5316	5420	5524	5629	5733	5837	5942	6046	7 73.5
65	6150	6254	6359	6463	6567	6671	6776	6880	6984	7088	8 84.0
66	7193	7297	7401	7505	7610	7714	7818	7922	8027	8131	9 94.5
67	8235	8339	8443	8548	8652	8756	8860	8964	9069	9173	
68	9277	9381	9485	9590	9694	9798	9902	0006	0111	0215	
69	620 0319	0423	0527	0631	0736	0840	0944	1048	1152	1256	
4170	1361	1465	1569	1673	1777	1881	1985	2090	2194	2298	
71	2402	2506	2610	2714	2818	2922	3027	3131	3235	3339	104
72	3443	3547	3651	3755	3859	3963	4068	4172	4276	4380	1 10.4
73	4484	4588	4692	4796	4900	5004	5108	5212	5316	5420	2 20.8
74	5524	5628	5733	5837	5941	6045	6149	6253	6357	6461	3 31.2
75	6565	6669	6773	6877	6981	7085	7189	7293	7397	7501	4 41.6
76	7605	7709	7813	7917	8021	8125	8229	8333	8437	8541	5 52.0
77	8645	8749	8853	8957	9061	9165	9269	9373	9476	9580	6 62.4
78	9684	9788	9892	9996	0100	0204	0308	0412	0516	0620	7 72.8
79	621 0724	0828	0932	1035	1139	1243	1347	1451	1555	1659	8 83.2
4180	1763	1867	1971	2075	2178	2282	2386	2490	2594	2698	9 93.6
81	2802	2906	3009	3113	3217	3321	3425	3529	3633	3736	
82	3840	3944	4048	4152	4256	4359	4463	4567	4671	4775	
83	4879	4982	5086	5190	5294	5398	5502	5605	5709	5813	
84	5917	6021	6124	6228	6332	6436	6540	6643	6747	6851	
85	6955	7058	7162	7266	7370	7473	7577	7681	7785	7888	
86	7992	8096	8200	8303	8407	8511	8615	8718	8822	8926	103
87	9030	9133	9237	9341	9444	9548	9652	9756	9859	9963	1 10.3
88	622 0067	0170	0274	0378	0482	0585	0689	0793	0896	1000	2 20.6
89	1104	1207	1311	1415	1518	1622	1726	1829	1933	2037	3 30.9
4190	2140	2244	2348	2451	2555	2658	2762	2866	2969	3073	4 41.2
91	3177	3280	3384	3487	3591	3695	3798	3902	4006	4109	5 51.5
92	4213	4316	4420	4524	4627	4731	4834	4938	5041	5145	6 61.8
93	5249	5352	5456	5559	5663	5766	5870	5974	6077	6181	7 72.1
94	6284	6388	6491	6595	6698	6802	6906	7009	7113	7216	8 82.4
95	7320	7423	7527	7630	7734	7837	7941	8044	8148	8251	9 92.7
96	8355	8458	8562	8665	8769	8872	8976	9079	9183	9286	
97	9390	9493	9597	9700	9804	9907	0011	0114	0217	0321	
98	623 0424	0528	0631	0735	0838	0942	1045	1148	1252	1355	
99	1459	1562	1666	1769	1872	1976	2079	2183	2286	2389	
4200	2493	2596	2700	2803	2906	3010	3113	3217	3320	3423	
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4200	623 2493	2596	2700	2803	2906	3010	3113	3217	3320	3423	
01	3527	3630	3734	3837	3940	4044	4147	4250	4354	4457	
02	4560	4664	4767	4871	4974	5077	5181	5284	5387	5491	
03	5594	5697	5801	5904	6007	6111	6214	6317	6420	6524	
04	6627	6730	6834	6937	7040	7144	7247	7350	7453	7557	
05	7660	7763	7867	7970	8073	8176	8280	8383	8486	8589	
06	8693	8796	8899	9002	9106	9209	9312	9415	9519	9622	
07	9725	9828	9932	$\bar{0}035$	$\bar{0}138$	$\bar{0}241$	$\bar{0}344$	$\bar{0}448$	$\bar{0}551$	$\bar{0}654$	104
08	624 0757	0861	0964	1067	1170	1273	1377	1480	1583	1686	1 10.4
09	1789	1892	1996	2099	2202	2305	2408	2511	2615	2718	2 20.8
4210	2821	2924	3027	3130	3234	3337	3440	3543	3646	3749	3 31.2
11	3852	3956	4059	4162	4265	4368	4471	4574	4677	4781	4 41.6
12	4884	4987	5090	5193	5296	5399	5502	5605	5708	5812	5 52.0
13	5915	6018	6121	6224	6327	6430	6533	6636	6739	6842	6 62.4
14	6945	7048	7151	7254	7358	7461	7564	7667	7770	7873	7 72.8
15	7976	8079	8182	8285	8388	8491	8594	8697	8800	8903	8 83.2
16	9006	9109	9212	9315	9418	9521	9624	9727	9830	9933	9 93.6
17	625 0036	0139	0242	0345	0448	0551	0654	0757	0860	0963	
18	1066	1169	1272	1375	1478	1581	1683	1786	1889	1992	
19	2095	2198	2301	2404	2507	2610	2713	2816	2919	3022	
4220	3125	3227	3330	3433	3536	3639	3742	3845	3948	4051	
21	4154	4256	4359	4462	4565	4668	4771	4874	4977	5079	103
22	5182	5285	5388	5491	5594	5697	5799	5902	6005	6108	1 10.3
23	6211	6314	6416	6519	6622	6725	6828	6931	7033	7136	2 20.6
24	7239	7342	7445	7548	7650	7753	7856	7959	8062	8164	3 30.9
25	8267	8370	8473	8575	8678	8781	8884	8987	9089	9192	4 41.2
26	9295	9398	9500	9603	9706	9809	9911	$\bar{0}014$	$\bar{0}117$	$\bar{0}220$	5 51.5
27	626 0322	0425	0528	0631	0733	0836	0939	1042	1144	1247	6 61.8
28	1350	1453	1555	1658	1761	1863	1966	2069	2171	2274	7 72.1
29	2377	2480	2582	2685	2788	2890	2993	3096	3198	3301	8 82.4
4230	3404	3506	3609	3712	3814	3917	4020	4122	4225	4328	9 92.7
31	4430	4533	4636	4738	4841	4943	5046	5149	5251	5354	
32	5457	5559	5662	5764	5867	5970	6072	6175	6277	6380	
33	6483	6585	6688	6790	6893	6996	7098	7201	7303	7406	
34	7509	7611	7714	7816	7919	8021	8124	8226	8329	8432	
35	8534	8637	8739	8842	8944	9047	9149	9252	9354	9457	
36	9560	9662	9765	9867	9970	$\bar{0}072$	$\bar{0}175$	$\bar{0}277$	$\bar{0}380$	$\bar{0}482$	102
37	627 0585	0687	0790	0892	0995	1097	1200	1302	1405	1507	1 10.2
38	1610	1712	1814	1917	2019	2122	2224	2327	2429	2532	2 20.4
39	2634	2737	2839	2942	3044	3146	3249	3351	3454	3556	3 30.6
4240	3659	3761	3863	3966	4068	4171	4273	4376	4478	4580	4 40.8
41	4683	4785	4888	4990	5092	5195	5297	5399	5502	5604	5 51.0
42	5707	5809	5911	6014	6116	6219	6321	6423	6526	6628	6 61.2
43	6730	6833	6935	7037	7140	7242	7344	7447	7549	7651	7 71.4
44	7754	7856	7958	8061	8163	8265	8368	8470	8572	8675	8 81.6
45	8777	8879	8982	9084	9186	9288	9391	9493	9595	9698	9 91.8
46	9800	9902	$\bar{0}004$	$\bar{0}107$	$\bar{0}209$	$\bar{0}311$	$\bar{0}414$	$\bar{0}516$	$\bar{0}618$	$\bar{0}720$	
47	628 0823	0925	1027	1129	1232	1334	1436	1538	1641	1743	
48	1845	1947	2050	2152	2254	2356	2458	2561	2663	2765	
49	2867	2970	3072	3174	3276	3378	3481	3583	3685	3787	
4250	3889	3991	4094	4196	4298	4400	4502	4605	4707	4809	
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4250	628 3889	3991	4094	4196	4298	4400	4502	4605	4707	4809	
51	4911	5013	5115	5218	5320	5422	5524	5626	5728	5830	
52	5933	6035	6137	6239	6341	6443	6545	6647	6750	6852	
53	6954	7056	7158	7260	7362	7464	7566	7669	7771	7873	
54	7975	8077	8179	8281	8383	8485	8587	8689	8792	8894	
55	8996	9098	9200	9302	9404	9506	9608	9710	9812	9914	
56	629 0016	0118	0220	0322	0424	0526	0628	0730	0832	0934	
57	1037	1139	1241	1343	1445	1547	1649	1751	1853	1955	103
58	2057	2159	2261	2363	2465	2567	2668	2770	2872	2974	1 10.3
59	3076	3178	3280	3382	3484	3586	3688	3790	3892	3994	2 20.6
4260	4096	4198	4300	4402	4504	4606	4708	4810	4911	5013	3 30.9
61	5115	5217	5319	5421	5523	5625	5727	5829	5931	6033	4 41.2
62	6134	6236	6338	6440	6542	6644	6746	6848	6950	7051	5 51.5
63	7153	7255	7357	7459	7561	7663	7765	7866	7968	8070	6 61.8
64	8172	8274	8376	8478	8579	8681	8783	8885	8987	9089	7 72.1
65	9190	9292	9394	9496	9598	9699	9801	9903	0005	0107	8 82.4
66	630 0209	0310	0412	0514	0616	0717	0819	0921	1023	1125	9 92.7
67	1226	1328	1430	1532	1634	1735	1837	1939	2041	2142	
68	2244	2346	2448	2549	2651	2753	2855	2956	3058	3160	
69	3262	3363	3465	3567	3668	3770	3872	3974	4075	4177	
4270	4279	4380	4482	4584	4686	4787	4889	4991	5092	5194	
71	5296	5397	5499	5601	5702	5804	5906	6007	6109	6211	102
72	6312	6414	6516	6617	6719	6821	6922	7024	7126	7227	1 10.2
73	7329	7431	7532	7634	7735	7837	7939	8040	8142	8244	2 20.4
74	8345	8447	8548	8650	8752	8853	8955	9056	9158	9260	3 30.6
75	9361	9463	9564	9666	9768	9869	9971	0072	0174	0275	4 40.8
76	631 0377	0479	0580	0682	0783	0885	0986	1088	1189	1291	5 51.0
77	1393	1494	1596	1697	1799	1900	2002	2103	2205	2306	6 61.2
78	2408	2509	2611	2712	2814	2915	3017	3118	3220	3321	7 71.4
79	3423	3524	3626	3727	3829	3930	4032	4133	4235	4336	8 81.6
4280	4438	4539	4641	4742	4844	4945	5046	5148	5249	5351	9 91.8
81	5452	5554	5655	5757	5858	5959	6061	6162	6264	6365	
82	6467	6568	6669	6771	6872	6974	7075	7177	7278	7379	
83	7481	7582	7684	7785	7886	7988	8089	8190	8292	8393	
84	8495	8596	8697	8799	8900	9001	9103	9204	9306	9407	
85	9508	9610	9711	9812	9914	0015	0116	0218	0319	0420	
86	632 0522	0623	0724	0826	0927	1028	1130	1231	1332	1434	101
87	1535	1636	1737	1839	1940	2041	2143	2244	2345	2446	1 10.1
88	2548	2649	2750	2852	2953	3054	3155	3257	3358	3459	2 20.2
89	3560	3662	3763	3864	3965	4067	4168	4269	4370	4472	3 30.3
4290	4573	4674	4775	4877	4978	5079	5180	5282	5383	5484	4 40.4
91	5585	5686	5788	5889	5990	6091	6192	6294	6395	6496	5 50.5
92	6597	6698	6800	6901	7002	7103	7204	7305	7407	7508	6 60.6
93	7609	7710	7811	7912	8014	8115	8216	8317	8418	8519	7 70.7
94	8620	8722	8823	8924	9025	9126	9227	9328	9429	9531	8 80.8
95	9632	9733	9834	9935	0036	0137	0238	0339	0441	0542	9 90.9
96	633 0643	0744	0845	0946	1047	1148	1249	1350	1451	1552	
97	1654	1755	1856	1957	2058	2159	2260	2361	2462	2563	
98	2664	2765	2866	2967	3068	3169	3270	3371	3472	3573	
99	3674	3775	3876	3978	4079	4180	4281	4382	4483	4584	
4300	4685	4786	4887	4988	5089	5190	5291	5391	5492	5593	
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4300	633 4685	4786	4887	4988	5089	5190	5291	5391	5492	5593	
01	5694	5795	5896	5997	6098	6199	6300	6401	6502	6603	
02	6704	6805	6906	7007	7108	7209	7310	7411	7512	7613	
03	7713	7814	7915	8016	8117	8218	8319	8420	8521	8622	
04	8723	8824	8924	9025	9126	9227	9328	9429	9530	9631	
05	9732	9832	9933	0034	0135	0236	0337	0438	0539	0639	
06	634 0740	0841	0942	1043	1144	1245	1345	1446	1547	1648	
07	1749	1850	1950	2051	2152	2253	2354	2455	2555	2656	101
08	2757	2858	2959	3059	3160	3261	3362	3463	3563	3664	1 10.1
09	3765	3866	3967	4067	4168	4269	4370	4470	4571	4672	2 20.2
4310	4773	4873	4974	5075	5176	5276	5377	5478	5579	5679	3 30.3
11	5780	5881	5982	6082	6183	6284	6385	6485	6586	6687	4 40.4
12	6788	6888	6989	7090	7190	7291	7392	7492	7593	7694	5 50.5
13	7795	7895	7996	8097	8197	8298	8399	8499	8600	8701	6 60.6
14	8801	8902	9003	9103	9204	9305	9405	9506	9607	9707	7 70.7
15	9808	9909	0009	0110	0211	0311	0412	0512	0613	0714	8 80.8
16	635 0814	0915	1016	1116	1217	1317	1418	1519	1619	1720	9 90.9
17	1820	1921	2022	2122	2223	2323	2424	2525	2625	2726	
18	2826	2927	3028	3128	3229	3329	3430	3530	3631	3731	
19	3832	3933	4033	4134	4234	4335	4435	4536	4636	4737	
4320	4837	4938	5039	5139	5240	5340	5441	5541	5642	5742	
21	5843	5943	6044	6144	6245	6345	6446	6546	6647	6747	100
22	6848	6948	7049	7149	7250	7350	7450	7551	7651	7752	1 10.0
23	7852	7953	8053	8154	8254	8355	8455	8556	8656	8756	2 20.0
24	8857	8957	9058	9158	9259	9359	9459	9560	9660	9761	3 30.0
25	9861	9962	0062	0162	0263	0363	0464	0564	0664	0765	4 40.0
26	636 0865	0966	1066	1166	1267	1367	1467	1568	1668	1769	5 50.0
27	1869	1969	2070	2170	2270	2371	2471	2571	2672	2772	6 60.0
28	2873	2973	3073	3174	3274	3374	3475	3575	3675	3776	7 70.0
29	3876	3976	4076	4177	4277	4377	4478	4578	4678	4779	8 80.0
4330	4879	4979	5080	5180	5280	5380	5481	5581	5681	5782	9 90.0
31	5882	5982	6082	6183	6283	6383	6483	6584	6684	6784	
32	6884	6985	7085	7185	7285	7386	7486	7586	7686	7787	
33	7887	7987	8087	8188	8288	8388	8488	8588	8689	8789	
34	8889	8989	9089	9190	9290	9390	9490	9590	9691	9791	
35	9891	9991	0091	0192	0292	0392	0492	0592	0692	0793	
36	637 0893	0993	1093	1193	1293	1394	1494	1594	1694	1794	
37	1894	1994	2094	2195	2295	2395	2495	2595	2695	2795	99
38	2895	2996	3096	3196	3296	3396	3496	3596	3696	3796	1 9.9
39	3897	3997	4097	4197	4297	4397	4497	4597	4697	4797	2 19.8
4340	4897	4997	5097	5197	5298	5398	5498	5598	5698	5798	3 29.7
41	5898	5998	6098	6198	6298	6398	6498	6598	6698	6798	4 39.6
42	6898	6998	7098	7198	7298	7398	7498	7598	7698	7798	5 49.5
43	7898	7998	8098	8198	8298	8398	8498	8598	8698	8798	6 59.4
44	8898	8998	9098	9198	9298	9398	9498	9598	9698	9798	7 69.3
45	9898	9998	0098	0198	0298	0398	0497	0597	0697	0797	8 79.2
46	638 0897	0997	1097	1197	1297	1397	1497	1597	1697	1796	9 89.1
47	1896	1996	2096	2196	2296	2396	2496	2596	2696	2795	
48	2895	2995	3095	3195	3295	3395	3495	3594	3694	3794	
49	3894	3994	4094	4194	4294	4393	4493	4593	4693	4793	
4350	4893	4992	5092	5192	5292	5392	5492	5591	5691	5791	
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4350	638 4893	4992	5092	5192	5292	5392	5492	5591	5691	5791	
51	5891	5991	6090	6190	6290	6390	6490	6589	6689	6789	
52	6889	6989	7088	7188	7288	7388	7488	7587	7687	7787	
53	7887	7986	8086	8186	8286	8385	8485	8585	8683	8784	
54	8884	8984	9084	9183	9283	9383	9483	9582	9682	9782	
55	9882	9981	0081	0181	0280	0380	0480	0580	0679	0779	
56	639 0879	0978	1078	1178	1277	1377	1477	1577	1676	1776	
57	1876	1975	2073	2173	2274	2374	2474	2573	2673	2773	100
58	2872	2972	3072	3171	3271	3371	3470	3570	3669	3769	1 10.0
59	3869	3968	4068	4168	4267	4367	4466	4566	4666	4765	2 20.0
4360	4865	4963	5064	5164	5263	5363	5463	5562	5662	5761	3 30.0
61	5861	5960	6060	6160	6259	6359	6458	6558	6657	6757	4 40.0
62	6857	6956	7056	7155	7253	7354	7454	7553	7653	7753	5 50.0
63	7852	7952	8051	8151	8250	8350	8449	8549	8648	8748	6 60.0
64	8847	8947	9046	9146	9245	9345	9444	9544	9043	9743	7 70.0
65	9842	9942	0041	0141	0240	0340	0439	0539	0638	0738	8 80.0
66	640 0837	0937	1036	1136	1235	1335	1434	1534	1633	1732	9 90.0
67	1832	1931	2031	2130	2230	2329	2429	2528	2627	2727	
68	2826	2926	3025	3125	3224	3323	3423	3522	3622	3721	
69	3820	3920	4019	4119	4218	4317	4417	4516	4616	4715	
4370	4814	4914	5013	5113	5212	5311	5411	5510	5609	5709	
71	5808	5907	6007	6106	6205	6305	6404	6504	6603	6702	99
72	6802	6901	7000	7100	7199	7298	7398	7497	7596	7695	1 9.9
73	7795	7894	7993	8093	8192	8291	8391	8490	8589	8688	2 19.8
74	8788	8887	8986	9086	9185	9284	9383	9483	9582	9681	3 29.7
75	9781	9880	9979	0078	0178	0277	0376	0475	0575	0674	4 39.6
76	641 0773	0872	0972	1071	1170	1269	1369	1468	1567	1666	5 49.5
77	1765	1865	1964	2063	2162	2262	2361	2460	2559	2658	6 59.4
78	2758	2857	2956	3055	3154	3254	3353	3452	3551	3650	7 69.3
79	3749	3849	3948	4047	4146	4245	4344	4444	4543	4642	8 79.2
4380	4741	4840	4939	5039	5138	5237	5336	5435	5534	5633	9 89.1
81	5733	5832	5931	6030	6129	6228	6327	6426	6526	6625	
82	6724	6823	6922	7021	7120	7219	7318	7417	7517	7616	
83	7715	7814	7913	8012	8111	8210	8309	8408	8507	8606	
84	8705	8805	8904	9003	9102	9201	9300	9399	9498	9597	
85	9696	9795	9894	9993	0092	0191	0290	0389	0488	0587	
86	642 0686	0785	0884	0983	1082	1181	1280	1379	1478	1577	98
87	1676	1775	1874	1973	2072	2171	2270	2369	2468	2567	1 9.8
88	2666	2765	2864	2963	3062	3161	3260	3359	3458	3557	2 19.6
89	3656	3755	3854	3953	4052	4151	4249	4348	4447	4546	3 29.4
4390	4645	4744	4843	4942	5041	5140	5239	5338	5437	5535	4 39.2
91	5634	5733	5832	5931	6030	6129	6228	6327	6426	6524	5 49.0
92	6623	6722	6821	6920	7019	7118	7217	7315	7414	7513	6 58.8
93	7612	7711	7810	7909	8007	8106	8205	8304	8403	8502	7 68.6
94	8601	8699	8798	8897	8996	9095	9194	9292	9391	9490	8 78.4
95	9589	9688	9786	9885	9984	0083	0182	0280	0379	0478	9 88.2
96	643 0577	0676	0774	0873	0972	1071	1170	1268	1367	1466	
97	1565	1663	1762	1861	1960	2058	2157	2256	2355	2454	
98	2552	2651	2750	2848	2947	3046	3145	3243	3342	3441	
99	3540	3638	3737	3836	3935	4033	4132	4231	4329	4428	
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4400	643 4527	4625	4724	4823	4922	5020	5119	5218	5316	5415	
01	5514	5612	5711	5810	5908	6007	6106	6204	6303	6402	
02	6500	6599	6698	6796	6895	6994	7092	7191	7290	7388	
03	7487	7585	7684	7783	7881	7980	8079	8177	8276	8374	
04	8473	8572	8670	8769	8868	8966	9065	9163	9262	9361	
05	9459	9558	9656	9755	9853	9952	0051	0149	0248	0346	
06	644 0443	0543	0642	0741	0839	0938	1036	1135	1233	1332	
07	1431	1529	1628	1726	1825	1923	2022	2120	2219	2317	99
08	2416	2514	2613	2711	2810	2908	3007	3105	3204	3302	1 9.9
09	3401	3499	3598	3696	3795	3893	3992	4090	4189	4287	2 19.8
4410	4386	4484	4583	4681	4780	4878	4977	5075	5174	5272	3 29.7
11	5371	5469	5567	5666	5764	5863	5961	6060	6158	6257	4 39.6
12	6355	6453	6552	6650	6749	6847	6946	7044	7142	7241	5 49.5
13	7339	7438	7536	7635	7733	7831	7930	8028	8127	8225	6 59.4
14	8323	8422	8520	8618	8717	8815	8914	9012	9110	9209	7 69.3
15	9307	9405	9504	9602	9701	9799	9897	9996	0094	0192	8 79.2
16	645 0291	0389	0487	0586	0684	0782	0881	0979	1077	1176	9 89.1
17	1274	1372	1471	1569	1667	1766	1864	1962	2061	2159	
18	2257	2355	2454	2552	2650	2749	2847	2945	3043	3142	
19	3240	3338	3437	3535	3633	3731	3830	3928	4026	4124	
4420	4223	4321	4419	4517	4616	4714	4812	4910	5009	5107	
21	5205	5303	5402	5500	5598	5696	5795	5893	5991	6089	98
22	6187	6286	6384	6482	6580	6678	6777	6875	6973	7071	1 9.8
23	7169	7268	7366	7464	7562	7660	7758	7857	7955	8053	2 19.6
24	8151	8249	8348	8446	8544	8642	8740	8838	8936	9035	3 29.4
25	9133	9231	9329	9427	9525	9623	9722	9820	9918	0016	4 39.2
26	646 0114	0212	0310	0408	0507	0605	0703	0801	0899	0997	5 49.0
27	1095	1193	1291	1390	1488	1586	1684	1782	1880	1978	6 58.8
28	2076	2174	2272	2370	2468	2566	2665	2763	2861	2959	7 68.6
29	3057	3155	3253	3351	3449	3547	3645	3743	3841	3939	8 78.4
4430	4037	4135	4233	4331	4429	4527	4625	4723	4821	4919	9 88.2
31	5018	5116	5214	5312	5410	5508	5606	5704	5802	5900	
32	5998	6096	6193	6291	6389	6487	6585	6683	6781	6879	
33	6977	7075	7173	7271	7369	7467	7565	7663	7761	7859	
34	7957	8055	8153	8251	8349	8447	8545	8642	8740	8838	
35	8936	9034	9132	9230	9328	9426	9524	9622	9720	9817	
36	9915	0013	0111	0209	0307	0405	0503	0601	0699	0796	97
37	647 0894	0992	1090	1188	1286	1384	1482	1579	1677	1775	1 9.7
38	1873	1971	2069	2167	2264	2362	2460	2558	2656	2754	2 19.4
39	2851	2949	3047	3145	3243	3341	3438	3536	3634	3732	3 29.1
4440	3830	3928	4025	4123	4221	4319	4417	4514	4612	4710	4 38.8
41	4808	4906	5003	5101	5199	5297	5394	5492	5590	5688	5 48.5
42	5786	5883	5981	6079	6177	6274	6372	6470	6568	6665	6 58.2
43	6763	6861	6959	7056	7154	7252	7350	7447	7545	7643	7 67.9
44	7741	7838	7936	8034	8131	8229	8327	8425	8522	8620	8 77.6
45	8718	8815	8913	9011	9108	9206	9304	9402	9499	9597	9 87.3
46	9695	9792	9890	9988	0085	0183	0281	0378	0476	0574	
47	648 0671	0769	0867	0964	1062	1160	1257	1355	1453	1550	
48	1648	1745	1843	1941	2038	2136	2234	2331	2429	2526	
49	2624	2722	2819	2917	3015	3112	3210	3307	3405	3503	
4450	3600	3698	3795	3893	3990	4088	4186	4283	4381	4478	
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51	4576	4674	4771	4869	4966	5064	5161	5259	5356	5454	
52	5552	5649	5747	5844	5942	6039	6137	6234	6332	6429	
53	6527	6624	6722	6820	6917	7015	7112	7210	7307	7405	
54	7502	7600	7697	7795	7892	7990	8087	8185	8282	8380	
55	8477	8575	8672	8770	8867	8964	9062	9159	9257	9354	
56	9452	9549	9647	9744	9842	9939	0037	0134	0231	0329	
57	649 0426	0524	0621	0719	0816	0914	1011	1108	1206	1303	98
58	1401	1498	1595	1693	1790	1888	1985	2083	2180	2277	1 9.8
59	2375	2472	2570	2667	2764	2862	2959	3056	3154	3251	2 19.6
4460	3349	3446	3543	3641	3738	3835	3933	4030	4128	4225	3 29.4
61	4322	4420	4517	4614	4712	4809	4906	5004	5101	5198	4 39.2
62	5296	5393	5490	5588	5685	5782	5880	5977	6074	6172	5 49.0
63	6269	6366	6463	6561	6658	6755	6853	6950	7047	7145	6 58.8
64	7242	7339	7436	7534	7631	7728	7826	7923	8020	8117	7 68.6
65	8215	8312	8409	8506	8604	8701	8798	8895	8993	9090	8 78.4
66	9187	9284	9382	9479	9576	9673	9771	9868	9965	0062	9 88.2
67	650 0160	0257	0354	0451	0548	0646	0743	0840	0937	1034	
68	1132	1229	1326	1423	1520	1618	1715	1812	1909	2006	
69	2104	2201	2298	2395	2492	2589	2687	2784	2881	2978	
4470	3075	3172	3270	3367	3464	3561	3658	3755	3852	3950	
71	4047	4144	4241	4338	4435	4532	4629	4727	4824	4921	97
72	5018	5115	5212	5309	5406	5503	5601	5698	5795	5892	1 9.7
73	5989	6086	6183	6280	6377	6474	6571	6669	6766	6863	2 19.4
74	6960	7057	7154	7251	7348	7445	7542	7639	7736	7833	3 29.1
75	7930	8027	8124	8222	8319	8416	8513	8610	8707	8804	4 38.8
76	8901	8998	9095	9192	9289	9386	9483	9580	9677	9774	5 48.5
77	9871	9968	0065	0162	0259	0356	0453	0550	0647	0744	6 58.2
78	651 0841	0938	1035	1132	1229	1326	1423	1520	1617	1714	7 67.9
79	1811	1908	2005	2102	2198	2295	2392	2489	2586	2683	8 77.6
4480	2780	2877	2974	3071	3168	3265	3362	3459	3556	3653	9 87.3
81	3749	3846	3943	4040	4137	4234	4331	4428	4525	4622	
82	4719	4815	4912	5009	5106	5203	5300	5397	5494	5591	
83	5687	5784	5881	5978	6075	6172	6269	6365	6462	6559	
84	6656	6753	6850	6947	7043	7140	7237	7334	7431	7528	
85	7624	7721	7818	7915	8012	8109	8205	8302	8399	8496	
86	8593	8690	8786	8883	8980	9077	9174	9270	9367	9464	96
87	9561	9657	9754	9851	9948	0045	0141	0238	0335	0432	1 9.6
88	652 0528	0625	0722	0819	0916	1012	1109	1206	1303	1399	2 19.2
89	1496	1593	1690	1786	1883	1980	2076	2173	2270	2367	3 28.8
4490	2463	2560	2657	2754	2850	2947	3044	3140	3237	3334	4 38.4
91	3431	3527	3624	3721	3817	3914	4011	4107	4204	4301	5 48.0
92	4397	4494	4591	4688	4784	4881	4978	5074	5171	5268	6 57.6
93	5364	5461	5558	5654	5751	5847	5944	6041	6137	6234	7 67.2
94	6331	6427	6524	6621	6717	6814	6910	7007	7104	7200	8 76.8
95	7297	7394	7490	7587	7683	7780	7877	7973	8070	8166	9 86.4
96	8263	8360	8456	8553	8649	8746	8843	8939	9036	9132	
97	9229	9325	9422	9519	9615	9712	9808	9905	0001	0098	
98	653 0195	0291	0388	0484	0581	0677	0774	0870	0967	1063	
99	1160	1256	1353	1450	1546	1643	1739	1836	1932	2029	
4500	2125	2222	2318	2415	2511	2608	2704	2801	2897	2994	
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4500	653 2125	2222	2318	2415	2511	2608	2704	2801	2897	2994	
01	3090	3187	3283	3380	3476	3573	3669	3765	3862	3958	
02	4055	4151	4248	4344	4441	4537	4634	4730	4827	4923	
03	5019	5116	5212	5309	5405	5502	5598	5695	5791	5887	
04	5984	6080	6177	6273	6369	6466	6562	6659	6755	6852	
05	6948	7044	7141	7237	7334	7430	7526	7623	7719	7815	
06	7912	8008	8105	8201	8297	8394	8490	8586	8683	8779	
07	8876	8972	9068	9165	9261	9357	9454	9550	9646	9743	97
08	9839	9935	$\bar{0}032$	$\bar{0}128$	$\bar{0}224$	$\bar{0}321$	$\bar{0}417$	$\bar{0}513$	$\bar{0}610$	$\bar{0}706$	1 9.7
09	654 0802	0899	0995	1091	1188	1284	1380	1477	1573	1669	2 19.4
4510	1765	1862	1958	2054	2151	2247	2343	2439	2536	2632	3 29.1
11	2728	2825	2921	3017	3113	3210	3306	3402	3498	3595	4 38.8
12	3691	3787	3883	3980	4076	4172	4268	4365	4461	4557	5 48.5
13	4653	4750	4846	4942	5038	5134	5231	5327	5423	5519	6 58.2
14	5616	5712	5808	5904	6000	6097	6193	6289	6385	6481	7 67.9
15	6578	6674	6770	6866	6962	7058	7155	7251	7347	7443	8 77.6
16	7539	7635	7732	7828	7924	8020	8116	8212	8309	8405	9 87.3
17	8501	8597	8693	8789	8885	8982	9078	9174	9270	9366	
18	9462	9558	9655	9751	9847	9943	$\bar{0}039$	$\bar{0}135$	$\bar{0}231$	$\bar{0}327$	
19	655 0423	0520	0616	0712	0808	0904	1000	1096	1192	1288	
4520	1384	1480	1577	1673	1769	1865	1961	2057	2153	2249	
21	2345	2441	2537	2633	2729	2825	2921	3017	3113	3210	96
22	3306	3402	3498	3594	3690	3786	3882	3978	4074	4170	1 9.6
23	4266	4362	4458	4554	4650	4746	4842	4938	5034	5130	2 19.2
24	5226	5322	5418	5514	5610	5706	5802	5898	5994	6090	3 28.8
25	6186	6282	6378	6474	6570	6666	6762	6858	6954	7050	4 38.4
26	7145	7241	7337	7433	7529	7625	7721	7817	7913	8009	5 48.0
27	8105	8201	8297	8393	8489	8585	8681	8776	8872	8968	6 57.6
28	9064	9160	9256	9352	9448	9544	9640	9736	9831	9927	7 67.2
29	656 0023	0119	0215	0311	0407	0503	0599	0694	0790	0886	8 76.8
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31	1941	2036	2132	2228	2324	2420	2516	2612	2707	2803	
32	2899	2995	3091	3186	3282	3378	3474	3570	3666	3761	
33	3857	3953	4049	4145	4240	4336	4432	4528	4624	4719	
34	4815	4911	5007	5103	5198	5294	5390	5486	5581	5677	
35	5773	5869	5964	6060	6156	6252	6347	6443	6539	6635	
36	6730	6826	6922	7018	7113	7209	7305	7401	7496	7592	
37	7688	7784	7879	7975	8071	8166	8262	8358	8454	8549	95
38	8645	8741	8836	8932	9028	9123	9219	9315	9410	9506	1 9.5
39	9602	9698	9793	9889	9985	$\bar{0}080$	$\bar{0}176$	$\bar{0}272$	$\bar{0}367$	$\bar{0}463$	2 19.0
4540	657 0559	0654	0750	0845	0941	1037	1132	1228	1324	1419	3 28.5
41	1515	1611	1706	1802	1898	1993	2089	2184	2280	2376	4 38.0
42	2471	2567	2663	2758	2854	2949	3045	3141	3236	3332	5 47.5
43	3427	3523	3619	3714	3810	3905	4001	4096	4192	4288	6 57.0
44	4383	4479	4574	4670	4766	4861	4957	5052	5148	5243	7 66.5
45	5339	5434	5530	5626	5721	5817	5912	6008	6103	6199	8 76.0
46	6294	6390	6485	6581	6676	6772	6867	6963	7059	7154	9 85.5
47	7250	7345	7441	7536	7632	7727	7823	7918	8014	8109	
48	8205	8300	8396	8491	8587	8682	8777	8873	8968	9064	
49	9159	9255	9350	9446	9541	9637	9732	9828	9923	$\bar{0}019$	
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4550	658 0114	0209	0305	0400	0496	0591	0687	0782	0877	0973	
51	1068	1164	1259	1355	1450	1545	1641	1736	1832	1927	
52	2023	2118	2213	2309	2404	2500	2595	2690	2786	2881	
53	2977	3072	3167	3263	3358	3453	3549	3644	3740	3835	
54	3930	4026	4121	4216	4312	4407	4502	4598	4693	4788	
55	4884	4979	5074	5170	5265	5361	5456	5551	5647	5742	
56	5837	5932	6028	6123	6218	6314	6409	6504	6600	6695	
57	6790	6886	6981	7076	7171	7267	7362	7457	7553	7648	96
58	7743	7838	7934	8029	8124	8220	8315	8410	8505	8601	1 9.6
59	8696	8791	8886	8982	9077	9172	9267	9363	9458	9553	2 19.2
4560	9648	9744	9839	9934	0029	0125	0220	0315	0410	0506	3 28.8
61	659 0601	0696	0791	0886	0982	1077	1172	1267	1362	1458	4 38.4
62	1553	1648	1743	1838	1934	2029	2124	2219	2314	2410	5 48.0
63	2505	2600	2695	2790	2885	2981	3076	3171	3266	3361	6 57.6
64	3456	3552	3647	3742	3837	3932	4027	4122	4218	4313	7 67.2
65	4408	4503	4598	4693	4788	4883	4979	5074	5169	5264	8 76.8
66	5359	5454	5549	5644	5740	5835	5930	6025	6120	6215	9 86.4
67	6310	6405	6500	6595	6690	6786	6881	6976	7071	7166	
68	7261	7356	7451	7546	7641	7736	7831	7926	8021	8117	
69	8212	8307	8402	8497	8592	8687	8782	8877	8972	9067	
4570	9162	9257	9352	9447	9542	9637	9732	9827	9922	0017	
71	660 0112	0207	0302	0397	0492	0587	0682	0777	0872	0967	95
72	1062	1157	1252	1347	1442	1537	1632	1727	1822	1917	1 9.5
73	2012	2107	2202	2297	2392	2487	2582	2677	2772	2867	2 19.0
74	2962	3057	3151	3246	3341	3436	3531	3626	3721	3816	3 28.5
75	3911	4006	4101	4196	4291	4386	4481	4575	4670	4765	4 38.0
76	4860	4955	5050	5145	5240	5335	5430	5524	5619	5714	5 47.5
77	5809	5904	5999	6094	6189	6284	6378	6473	6568	6663	6 57.0
78	6758	6853	6948	7042	7137	7232	7327	7422	7517	7612	7 66.5
79	7706	7801	7896	7991	8086	8181	8275	8370	8465	8560	8 76.0
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81	9603	9698	9793	9887	9982	0077	0172	0266	0361	0456	
82	661 0551	0646	0740	0835	0930	1025	1120	1214	1309	1404	
83	1499	1593	1688	1783	1878	1972	2067	2162	2257	2351	
84	2446	2541	2636	2730	2825	2920	3015	3109	3204	3299	
85	3393	3488	3583	3678	3772	3867	3962	4056	4151	4246	
86	4341	4435	4530	4625	4719	4814	4909	5003	5098	5193	94
87	5287	5382	5477	5571	5666	5761	5855	5950	6045	6139	1 9.4
88	6234	6329	6423	6518	6613	6707	6802	6897	6991	7086	2 18.8
89	7181	7275	7370	7464	7559	7654	7748	7843	7938	8032	3 28.2
4590	8127	8221	8316	8411	8505	8600	8695	8789	8884	8978	4 37.6
91	9073	9168	9262	9357	9451	9546	9640	9735	9830	9924	5 47.0
92	662 0019	0113	0208	0303	0397	0492	0586	0681	0775	0870	6 56.4
93	0964	1059	1154	1248	1343	1437	1532	1626	1721	1815	7 65.8
94	1910	2004	2099	2194	2288	2383	2477	2572	2666	2761	8 75.2
95	2855	2950	3044	3139	3233	3328	3422	3517	3611	3706	9 84.6
96	3800	3895	3989	4084	4178	4273	4367	4462	4556	4651	
97	4745	4840	4934	5028	5123	5217	5312	5406	5501	5595	
98	5690	5784	5879	5973	6067	6162	6256	6351	6445	6540	
99	6634	6729	6823	6917	7012	7106	7201	7295	7389	7484	
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02	9466	9561	9655	9749	9844	9938	0032	0127	0221	0315	
03	663 0410	0504	0598	0693	0787	0881	0976	1070	1164	1259	
04	1353	1447	1542	1636	1730	1825	1919	2013	2108	2202	
05	2296	2391	2485	2579	2674	2768	2862	2956	3051	3145	
06	3239	3334	3428	3522	3616	3711	3805	3899	3994	4088	
07	4182	4276	4371	4465	4559	4653	4748	4842	4936	5030	95
08	5125	5219	5313	5407	5502	5596	5690	5784	5879	5973	1 9.5
09	6067	6161	6256	6350	6444	6538	6632	6727	6821	6915	2 19.0
4610	7009	7103	7198	7292	7386	7480	7574	7669	7763	7857	3 28.5
11	7951	8045	8140	8234	8328	8422	8516	8610	8705	8799	4 38.0
12	8893	8987	9081	9175	9270	9364	9458	9552	9646	9740	5 47.5
13	9835	9929	0023	0117	0211	0305	0399	0494	0588	0682	6 57.0
14	664 0776	0870	0964	1058	1152	1247	1341	1435	1529	1623	7 66.5
15	1717	1811	1905	1999	2093	2188	2282	2376	2470	2564	8 76.0
16	2658	2752	2846	2940	3034	3128	3222	3317	3411	3505	9 85.5
17	3599	3693	3787	3881	3975	4069	4163	4257	4351	4445	
18	4539	4633	4727	4821	4915	5009	5104	5198	5292	5386	
19	5480	5574	5668	5762	5856	5950	6044	6138	6232	6326	
4620	6420	6514	6608	6702	6796	6890	6984	7078	7172	7266	
21	7360	7454	7548	7642	7736	7830	7924	8018	8111	8205	94
22	8299	8393	8487	8581	8675	8769	8863	8957	9051	9145	1 9.4
23	9239	9333	9427	9521	9615	9709	9803	9896	9990	0084	2 18.8
24	665 0178	0272	0366	0460	0554	0648	0742	0836	0930	1023	3 28.2
25	1117	1211	1305	1399	1493	1587	1681	1775	1869	1962	4 37.6
26	2056	2150	2244	2338	2432	2526	2620	2713	2807	2901	5 47.0
27	2995	3089	3183	3277	3370	3464	3558	3652	3746	3840	6 56.4
28	3934	4027	4121	4215	4309	4403	4497	4590	4684	4778	7 65.8
29	4872	4966	5059	5153	5247	5341	5435	5529	5622	5716	8 75.2
4630	5810	5904	5998	6091	6185	6279	6373	6466	6560	6654	9 84.6
31	6748	6842	6935	7029	7123	7217	7310	7404	7498	7592	
32	7686	7779	7873	7967	8061	8154	8248	8342	8436	8529	
33	8623	8717	8810	8904	8998	9092	9185	9279	9373	9467	
34	9560	9654	9748	9841	9935	0029	0123	0216	0310	0404	
35	666 0497	0591	0685	0778	0872	0966	1060	1153	1247	1341	
36	1434	1528	1622	1715	1809	1903	1996	2090	2184	2277	
37	2371	2465	2558	2652	2746	2839	2933	3027	3120	3214	93
38	3307	3401	3495	3588	3682	3776	3869	3963	4056	4150	1 9.3
39	4244	4337	4431	4525	4618	4712	4805	4899	4993	5086	2 18.6
4640	5180	5273	5367	5461	5554	5648	5741	5835	5929	6022	3 27.9
41	6116	6209	6303	6396	6490	6584	6677	6771	6864	6958	4 37.2
42	7051	7145	7238	7332	7426	7519	7613	7706	7800	7893	5 46.5
43	7987	8080	8174	8267	8361	8454	8548	8642	8735	8829	6 55.8
44	8922	9016	9109	9203	9296	9390	9483	9577	9670	9764	7 65.1
45	9857	9951	0044	0138	0231	0325	0418	0512	0605	0699	8 74.4
46	667 0792	0886	0979	1072	1166	1259	1353	1446	1540	1633	9 83.7
47	1727	1820	1914	2007	2101	2194	2287	2381	2474	2568	
48	2661	2755	2848	2941	3035	3128	3222	3315	3409	3502	
49	3595	3689	3782	3876	3969	4063	4156	4249	4343	4436	
4650	4530	4623	4716	4810	4903	4996	5090	5183	5277	5370	
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4650	667 4530	4623	4716	4810	4903	4996	5090	5183	5277	5370	
51	5463	5557	5650	5744	5837	5930	6024	6117	6210	6304	
52	6397	6490	6584	6677	6770	6864	6957	7051	7144	7237	
53	7331	7424	7517	7611	7704	7797	7891	7984	8077	8170	
54	8264	8357	8450	8544	8637	8730	8824	8917	9010	9104	
55	9197	9290	9383	9477	9570	9663	9757	9850	9943	$\bar{0}036$	
56	668 0130	0223	0316	0410	0503	0596	0689	0783	0876	0969	
57	1062	1156	1249	1342	1435	1529	1622	1715	1808	1902	94
58	1995	2088	2181	2275	2368	2461	2554	2647	2741	2834	1 9.4
59	2927	3020	3114	3207	3300	3393	3486	3580	3673	3766	2 18.8
4660	3859	3952	4046	4139	4232	4325	4418	4511	4605	4698	3 28.2
61	4791	4884	4977	5071	5164	5257	5350	5443	5536	5630	4 37.6
62	5723	5816	5909	6002	6095	6188	6282	6375	6468	6561	5 47.0
63	6654	6747	6840	6934	7027	7120	7213	7306	7399	7492	6 56.4
64	7585	7679	7772	7865	7958	8051	8144	8237	8330	8423	7 65.8
65	8516	8610	8703	8796	8889	8982	9075	9168	9261	9354	8 75.2
66	9447	9540	9633	9727	9820	9913	$\bar{0}006$	$\bar{0}099$	$\bar{0}192$	$\bar{0}285$	9 84.6
67	669 0378	0471	0564	0657	0750	0843	0936	1029	1122	1215	
68	1308	1402	1495	1588	1681	1774	1867	1960	2053	2146	
69	2239	2332	2425	2518	2611	2704	2797	2890	2983	3076	
4670	3169	3262	3355	3448	3541	3634	3727	3820	3913	4006	
71	4099	4192	4285	4378	4471	4564	4656	4749	4842	4935	93
72	5028	5121	5214	5307	5400	5493	5586	5679	5772	5865	1 9.3
73	5958	6051	6144	6237	6330	6422	6515	6608	6701	6794	2 18.6
74	6887	6980	7073	7166	7259	7352	7445	7537	7630	7723	3 27.9
75	7816	7909	8002	8095	8188	8281	8373	8466	8559	8652	4 37.2
76	8745	8838	8931	9024	9117	9209	9302	9395	9488	9581	5 46.5
77	9674	9767	9859	9952	$\bar{0}045$	$\bar{0}138$	$\bar{0}231$	$\bar{0}324$	$\bar{0}416$	$\bar{0}509$	6 55.8
78	670 0602	0695	0788	0881	0974	1066	1159	1252	1345	1438	7 65.1
79	1530	1623	1716	1809	1902	1995	2087	2180	2273	2366	8 74.4
4680	2459	2551	2644	2737	2830	2922	3015	3108	3201	3294	9 83.7
81	3386	3479	3572	3665	3758	3850	3943	4036	4129	4221	
82	4314	4407	4500	4592	4685	4778	4871	4963	5056	5149	
83	5242	5334	5427	5520	5613	5705	5798	5891	5983	6076	
84	6169	6262	6354	6447	6540	6632	6725	6818	6911	7003	
85	7096	7189	7281	7374	7467	7559	7652	7745	7837	7930	
86	8023	8116	8208	8301	8394	8486	8579	8672	8764	8857	92
87	8950	9042	9135	9228	9320	9413	9505	9598	9691	9783	1 9.2
88	9876	9969	$\bar{0}061$	$\bar{0}154$	$\bar{0}247$	$\bar{0}339$	$\bar{0}432$	$\bar{0}524$	$\bar{0}617$	$\bar{0}710$	2 18.4
89	671 0802	0895	0988	1080	1173	1265	1358	1451	1543	1636	3 27.6
4690	1728	1821	1914	2006	2099	2191	2284	2377	2469	2562	4 36.8
91	2654	2747	2839	2932	3025	3117	3210	3302	3395	3487	5 46.0
92	3580	3673	3765	3858	3950	4043	4135	4228	4320	4413	6 55.2
93	4506	4598	4691	4783	4876	4968	5061	5153	5246	5338	7 64.4
94	5431	5523	5616	5708	5801	5893	5986	6078	6171	6263	8 73.6
95	6356	6448	6541	6633	6726	6818	6911	7003	7096	7188	9 82.8
96	7281	7373	7466	7558	7651	7743	7836	7928	8021	8113	
97	8206	8298	8391	8483	8575	8668	8760	8853	8945	9038	
98	9130	9223	9315	9407	9500	9592	9685	9777	9870	9962	
99	672 0054	0147	0239	0332	0424	0517	0609	0701	0794	0886	
4700	0979	1071	1163	1256	1348	1441	1533	1625	1718	1810	
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4700	672 0979	1071	1163	1256	1348	1441	1533	1625	1718	1810	
01	1903	1995	2087	2180	2272	2364	2457	2549	2642	2734	
02	2826	2919	3011	3103	3196	3288	3380	3473	3565	3657	
03	3750	3842	3934	4027	4119	4211	4304	4396	4488	4581	
04	4673	4765	4858	4950	5042	5135	5227	5319	5412	5504	
05	5596	5689	5781	5873	5965	6058	6150	6242	6335	6427	
06	6519	6612	6704	6796	6888	6981	7073	7165	7257	7350	
07	7442	7534	7627	7719	7811	7903	7996	8088	8180	8272	93
08	8365	8457	8549	8641	8734	8826	8918	9010	9102	9195	1 9.3
09	9287	9379	9471	9564	9656	9748	9840	9932	$\bar{0}025$	$\bar{0}117$	2 18.6
4710	673 0209	0301	0393	0486	0578	0670	0762	0854	0947	1039	3 27.9 4 37.2
11	1131	1223	1315	1408	1500	1592	1684	1776	1868	1961	5 46.5
12	2053	2145	2237	2329	2421	2514	2606	2698	2790	2882	6 55.8
13	2974	3067	3159	3251	3343	3435	3527	3619	3712	3804	7 65.1
14	3896	3988	4080	4172	4264	4356	4449	4541	4633	4725	8 74.4
15	4817	4909	5001	5093	5185	5277	5370	5462	5554	5646	9 83.7
16	5738	5830	5922	6014	6106	6198	6290	6383	6475	6567	
17	6659	6751	6843	6935	7027	7119	7211	7303	7395	7487	
18	7579	7671	7763	7856	7948	8040	8132	8224	8316	8408	
19	8500	8592	8684	8776	8868	8960	9052	9144	9236	9328	
4720	9420	9512	9604	9696	9788	9880	9972	$\bar{0}064$	$\bar{0}156$	$\bar{0}248$	
21	674 0340	0432	0524	0616	0708	0800	0892	0984	1076	1168	92
22	1260	1352	1444	1536	1628	1720	1812	1904	1996	2088	1 9.2
23	2179	2271	2363	2455	2547	2639	2731	2823	2915	3007	2 18.4
24	3099	3191	3283	3375	3467	3559	3650	3742	3834	3926	3 27.6
25	4018	4110	4202	4294	4386	4478	4570	4661	4753	4845	4 36.8
26	4937	5029	5121	5213	5305	5397	5489	5580	5672	5764	5 46.0
27	5856	5948	6040	6132	6224	6315	6407	6499	6591	6683	6 55.2
28	6775	6867	6958	7050	7142	7234	7326	7418	7509	7601	7 64.4
29	7693	7785	7877	7969	8060	8152	8244	8336	8428	8520	8 73.6 9 82.8
4730	8611	8703	8795	8887	8979	9070	9162	9254	9346	9438	
31	9529	9621	9713	9805	9897	9988	$\bar{0}080$	$\bar{0}172$	$\bar{0}264$	$\bar{0}356$	
32	675 0447	0539	0631	0723	0814	0906	0998	1090	1182	1273	
33	1365	1457	1549	1640	1732	1824	1916	2007	2099	2191	
34	2283	2374	2466	2558	2649	2741	2833	2925	3016	3108	
35	3200	3292	3383	3475	3567	3658	3750	3842	3934	4025	
36	4117	4209	4300	4392	4484	4575	4667	4759	4850	4942	
37	5034	5126	5217	5309	5401	5492	5584	5676	5767	5859	91
38	5951	6042	6134	6226	6317	6409	6501	6592	6684	6775	1 9.1
39	6867	6959	7050	7142	7234	7325	7417	7509	7600	7692	2 18.2
4740	7783	7875	7967	8058	8150	8242	8333	8425	8516	8608	3 27.3 4 36.4
41	8700	8791	8883	8974	9066	9158	9249	9341	9432	9524	5 45.5
42	9615	9707	9799	9890	9982	$\bar{0}073$	$\bar{0}165$	$\bar{0}257$	$\bar{0}348$	$\bar{0}440$	6 54.6
43	676 0531	0623	0714	0806	0897	0989	1081	1172	1264	1355	7 63.7 8 72.8
44	1447	1538	1630	1721	1813	1905	1996	2088	2179	2271	9 81.9
45	2362	2454	2545	2637	2728	2820	2911	3003	3094	3186	
46	3277	3369	3460	3552	3643	3735	3826	3918	4009	4101	
47	4192	4284	4375	4467	4558	4650	4741	4833	4924	5016	
48	5107	5199	5290	5382	5473	5564	5656	5747	5839	5930	
49	6022	6113	6205	6296	6387	6479	6570	6662	6753	6845	
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4750	676 6936	7028	7119	7210	7302	7393	7485	7576	7667	7759	
51	7850	7942	8033	8125	8216	8307	8399	8490	8582	8673	
52	8764	8856	8947	9038	9130	9221	9313	9404	9495	9587	
53	9678	9770	9861	9952	0044	0135	0226	0318	0409	0500	
54	677 0592	0683	0774	0866	0957	1049	1140	1231	1323	1414	
55	1505	1597	1688	1779	1871	1962	2053	2145	2236	2327	
56	2418	2510	2601	2692	2784	2875	2966	3058	3149	3240	
57	3332	3423	3514	3605	3697	3788	3879	3971	4062	4153	92
58	4244	4336	4427	4518	4609	4701	4792	4883	4975	5066	1 9.2
59	5157	5248	5340	5431	5522	5613	5705	5796	5887	5978	2 18.4
4760	6070	6161	6252	6343	6434	6526	6617	6708	6799	6891	3 27.6
61	6982	7073	7164	7255	7347	7438	7529	7620	7712	7803	4 36.8
62	7894	7985	8076	8168	8259	8350	8441	8532	8623	8715	5 46.0
63	8806	8897	8988	9079	9171	9262	9353	9444	9535	9626	6 55.2
64	9718	9809	9900	9991	0082	0173	0264	0356	0447	0538	7 64.4
65	678 0629	0720	0811	0902	0994	1085	1176	1267	1358	1449	8 73.6
66	1540	1632	1723	1814	1905	1996	2087	2178	2269	2360	9 82.8
67	2452	2543	2634	2725	2816	2907	2998	3089	3180	3271	
68	3362	3454	3545	3636	3727	3818	3909	4000	4091	4182	
69	4273	4364	4455	4546	4637	4729	4820	4911	5002	5093	
4770	5184	5275	5366	5457	5548	5639	5730	5821	5912	6003	
71	6094	6185	6276	6367	6458	6549	6640	6731	6822	6913	91
72	7004	7095	7186	7277	7368	7459	7550	7641	7732	7823	1 9.1
73	7914	8005	8096	8187	8278	8369	8460	8551	8642	8733	2 18.2
74	8824	8915	9006	9097	9188	9279	9370	9461	9552	9643	3 27.3
75	9734	9825	9916	0007	0098	0188	0279	0370	0461	0552	4 36.4
76	679 0643	0734	0825	0916	1007	1098	1189	1280	1371	1461	5 45.5
77	1552	1643	1734	1825	1916	2007	2098	2189	2280	2371	6 54.6
78	2461	2552	2643	2734	2825	2916	3007	3098	3189	3279	7 63.7
79	3370	3461	3552	3643	3734	3825	3916	4006	4097	4188	8 72.8
4780	4279	4370	4461	4552	4642	4733	4824	4915	5006	5097	9 81.9
81	5187	5278	5369	5460	5551	5642	5732	5823	5914	6005	
82	6096	6187	6277	6368	6459	6550	6641	6731	6822	6913	
83	7004	7095	7185	7276	7367	7458	7549	7639	7730	7821	
84	7912	8002	8093	8184	8275	8366	8456	8547	8638	8729	
85	8819	8910	9001	9092	9182	9273	9364	9455	9545	9636	
86	9727	9818	9908	9999	0090	0181	0271	0362	0453	0544	90
87	680 0634	0725	0816	0906	0997	1088	1179	1269	1360	1451	1 9.0
88	1541	1632	1723	1814	1904	1995	2086	2176	2267	2358	2 18.0
89	2448	2539	2630	2720	2811	2902	2992	3083	3174	3264	3 27.0
4790	3355	3446	3536	3627	3718	3808	3899	3990	4080	4171	4 36.0
91	4262	4352	4443	4534	4624	4715	4806	4896	4987	5077	5 45.0
92	5168	5259	5349	5440	5531	5621	5712	5802	5893	5984	6 54.0
93	6074	6165	6256	6346	6437	6527	6618	6709	6799	6890	7 63.0
94	6980	7071	7161	7252	7343	7433	7524	7614	7705	7796	8 72.0
95	7886	7977	8067	8158	8248	8339	8430	8520	8611	8701	9 81.0
96	8792	8882	8973	9063	9154	9244	9335	9426	9516	9607	
97	9697	9788	9878	9969	0059	0150	0240	0331	0421	0512	
98	681 0602	0693	0783	0874	0964	1055	1145	1236	1327	1417	
99	1507	1598	1688	1779	1869	1960	2050	2141	2231	2322	
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4800	681 2412	2503	2593	2684	2774	2865	2955	3046	3136	3227	
01	3317	3408	3498	3588	3679	3769	3860	3950	4041	4131	
02	4222	4312	4402	4493	4583	4674	4764	4855	4945	5035	
03	5126	5216	5307	5397	5488	5578	5668	5759	5849	5940	
04	6030	6120	6211	6301	6392	6482	6572	6663	6753	6844	
05	6934	7024	7115	7205	7295	7386	7476	7567	7657	7747	
06	7838	7928	8018	8109	8199	8289	8380	8470	8561	8651	
07	8741	8832	8922	9012	9103	9193	9283	9374	9464	9554	91
08	9645	9735	9825	9916	$\bar{0}006$	$\bar{0}096$	$\bar{0}187$	$\bar{0}277$	$\bar{0}367$	$\bar{0}457$	1 9.1
09	682 0548	0638	0728	0819	0909	0999	1090	1180	1270	1360	2 18.2
4810	1451	1541	1631	1722	1812	1902	1992	2083	2173	2263	3 27.3
11	2354	2444	2534	2624	2715	2805	2895	2985	3076	3166	4 36.4
12	3256	3346	3437	3527	3617	3707	3798	3888	3978	4068	5 45.5
13	4159	4249	4339	4429	4520	4610	4700	4790	4880	4971	6 54.6
14	5061	5151	5241	5331	5422	5512	5602	5692	5783	5873	7 63.7
15	5963	6053	6143	6233	6324	6414	6504	6594	6684	6775	8 72.8
16	6865	6955	7045	7135	7225	7316	7406	7496	7586	7676	9 81.9
17	7766	7857	7947	8037	8127	8217	8307	8398	8488	8578	
18	8668	8758	8848	8938	9029	9119	9209	9299	9389	9479	
19	9569	9659	9750	9840	9930	$\bar{0}020$	$\bar{0}110$	$\bar{0}200$	$\bar{0}290$	$\bar{0}380$	
4820	683 0470	0560	0651	0741	0831	0921	1011	1101	1191	1281	
21	1371	1461	1551	1642	1732	1822	1912	2002	2092	2182	90
22	2272	2362	2452	2542	2632	2722	2812	2902	2993	3083	1 9.0
23	3173	3263	3353	3443	3533	3623	3713	3803	3893	3983	2 18.0
24	4073	4163	4253	4343	4433	4523	4613	4703	4793	4883	3 27.0
25	4973	5063	5153	5243	5333	5423	5513	5603	5693	5783	4 36.0
26	5873	5963	6053	6143	6233	6323	6413	6503	6593	6683	5 45.0
27	6773	6863	6953	7043	7133	7223	7313	7403	7493	7583	6 54.0
28	7673	7763	7853	7942	8032	8122	8212	8302	8392	8482	7 63.0
29	8572	8662	8752	8842	8932	9022	9112	9202	9291	9381	8 72.0
4830	9471	9561	9651	9741	9831	9921	$\bar{0}011$	$\bar{0}101$	$\bar{0}191$	$\bar{0}280$	9 81.0
31	684 0370	0460	0550	0640	0730	0820	0910	1000	1089	1179	
32	1269	1359	1449	1539	1629	1719	1808	1898	1988	2078	
33	2168	2258	2348	2438	2527	2617	2707	2797	2887	2977	
34	3066	3156	3246	3336	3426	3516	3605	3695	3785	3875	
35	3965	4055	4144	4234	4324	4414	4504	4594	4683	4773	
36	4863	4953	5043	5132	5222	5312	5402	5492	5581	5671	89
37	5761	5851	5940	6030	6120	6210	6300	6389	6479	6569	1 8.9
38	6659	6748	6838	6928	7018	7107	7197	7287	7377	7466	2 17.8
39	7556	7646	7736	7825	7915	8005	8095	8184	8274	8364	3 26.7
4840	8454	8543	8633	8723	8813	8902	8992	9082	9171	9261	4 35.6
41	9351	9441	9530	9620	9710	9799	9889	9979	$\bar{0}068$	$\bar{0}158$	5 44.5
42	685 0248	0338	0427	0517	0607	0696	0786	0876	0965	1055	6 53.4
43	1145	1234	1324	1414	1503	1593	1683	1772	1862	1952	7 62.3
44	2041	2131	2221	2310	2400	2490	2579	2669	2759	2848	8 71.2
45	2938	3027	3117	3207	3296	3386	3476	3565	3655	3744	9 80.1
46	3834	3924	4013	4103	4193	4282	4372	4461	4551	4641	
47	4730	4820	4909	4999	5089	5178	5268	5357	5447	5537	
48	5626	5716	5805	5895	5984	6074	6164	6253	6343	6432	
49	6522	6611	6701	6791	6880	6970	7059	7149	7238	7328	
4850	7417	7507	7596	7686	7776	7865	7955	8044	8134	8223	
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4850	685 7417	7507	7596	7686	7776	7865	7955	8044	8134	8223	
51	8313	8402	8492	8581	8671	8760	8850	8939	9029	9118	
52	9208	9297	9387	9476	9566	9655	9745	9834	9924	0013	
53	686 0103	0192	0282	0371	0461	0550	0640	0729	0819	0908	
54	0998	1087	1177	1266	1356	1445	1535	1624	1713	1803	
55	1892	1982	2071	2161	2250	2340	2429	2518	2608	2697	
56	2787	2876	2966	3055	3145	3234	3323	3413	3502	3592	
57	3681	3770	3860	3949	4039	4128	4217	4307	4396	4486	90
58	4575	4665	4754	4843	4933	5022	5111	5201	5290	5380	1 9.0
59	5469	5558	5648	5737	5826	5916	6005	6095	6184	6273	2 18.0
4860	6363	6452	6541	6631	6720	6809	6899	6988	7078	7167	3 27.0
61	7256	7346	7435	7524	7614	7703	7792	7882	7971	8060	4 36.0
62	8150	8239	8328	8418	8507	8596	8685	8775	8864	8953	5 45.0
63	9043	9132	9221	9311	9400	9489	9578	9668	9757	9846	6 54.0
64	9936	0025	0114	0204	0293	0382	0471	0561	0650	0739	7 63.0
65	687 0828	0918	1007	1096	1186	1275	1364	1453	1543	1632	8 72.0
66	1721	1810	1900	1989	2078	2167	2257	2346	2435	2524	9 81.0
67	2613	2703	2792	2881	2970	3060	3149	3238	3327	3416	
68	3506	3595	3684	3773	3863	3952	4041	4130	4219	4309	
69	4398	4487	4576	4665	4755	4844	4933	5022	5111	5200	
4870	5290	5379	5468	5557	5646	5735	5825	5914	6003	6092	
71	6181	6270	6360	6449	6538	6627	6716	6805	6895	6984	89
72	7073	7162	7251	7340	7429	7518	7608	7697	7786	7875	1 8.9
73	7964	8053	8142	8231	8321	8410	8499	8588	8677	8766	2 17.8
74	8855	8944	9033	9123	9212	9301	9390	9479	9568	9657	3 26.7
75	9746	9835	9924	0013	0103	0192	0281	0370	0459	0548	4 35.6
76	688 0637	0726	0815	0904	0993	1082	1171	1260	1349	1439	5 44.5
77	1528	1617	1706	1795	1884	1973	2062	2151	2240	2329	6 53.4
78	2418	2507	2596	2685	2774	2863	2952	3041	3130	3219	7 62.3
79	3308	3397	3486	3575	3664	3753	3842	3931	4020	4109	8 71.2
4880	4198	4287	4376	4465	4554	4643	4732	4821	4910	4999	9 80.1
81	5088	5177	5266	5355	5444	5533	5622	5711	5800	5889	
82	5978	6067	6156	6245	6334	6423	6511	6600	6689	6778	
83	6867	6956	7045	7134	7223	7312	7401	7490	7579	7668	
84	7757	7845	7934	8023	8112	8201	8290	8379	8468	8557	
85	8646	8735	8823	8912	9001	9090	9179	9268	9357	9446	
86	9535	9624	9712	9801	9890	9979	0068	0157	0246	0335	88
87	689 0423	0512	0601	0690	0779	0868	0957	1045	1134	1223	1 8.8
88	1312	1401	1490	1579	1667	1756	1845	1934	2023	2112	2 17.6
89	2200	2289	2378	2467	2556	2645	2733	2822	2911	3000	3 26.4
4890	3089	3177	3266	3355	3444	3533	3621	3710	3799	3888	4 35.2
91	3977	4065	4154	4243	4332	4421	4509	4598	4687	4776	5 44.0
92	4864	4953	5042	5131	5220	5308	5397	5486	5575	5663	6 52.8
93	5752	5841	5930	6018	6107	6196	6285	6373	6462	6551	7 61.6
94	6640	6728	6817	6906	6995	7083	7172	7261	7350	7438	8 70.4
95	7527	7616	7704	7793	7882	7971	8059	8148	8237	8325	9 79.2
96	8414	8503	8591	8680	8769	8858	8946	9035	9124	9212	
97	9301	9390	9478	9567	9656	9744	9833	9922	0010	0099	
98	690 0188	0276	0365	0454	0542	0631	0720	0808	0897	0986	
99	1074	1163	1252	1340	1429	1518	1606	1695	1784	1872	
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4900	690 1961	2049	2138	2227	2315	2404	2493	2581	2670	2758	
01	2847	2936	3024	3113	3201	3290	3379	3467	3556	3644	
02	3733	3822	3910	3999	4087	4176	4265	4353	4442	4530	
03	4619	4708	4796	4885	4973	5062	5150	5239	5327	5416	
04	5505	5593	5682	5770	5859	5947	6036	6124	6213	6302	
05	6390	6479	6567	6656	6744	6833	6921	7010	7098	7187	
06	7275	7364	7452	7541	7630	7718	7807	7895	7984	8072	
07	8161	8249	8338	8426	8515	8603	8692	8780	8869	8957	89
08	9046	9134	9223	9311	9399	9488	9576	9665	9753	9842	1 8.9
09	9930	0019	0107	0196	0284	0373	0461	0550	0638	0726	2 17.8
4910	691 0815	0903	0992	1080	1169	1257	1346	1434	1522	1611	3 26.7
11	1699	1788	1876	1965	2053	2141	2230	2318	2407	2495	4 35.6
12	2584	2672	2760	2849	2937	3026	3114	3202	3291	3379	5 44.5
13	3468	3556	3644	3733	3821	3910	3998	4086	4175	4263	6 53.4
14	4352	4440	4528	4617	4705	4793	4882	4970	5058	5147	7 62.3
15	5235	5324	5412	5500	5589	5677	5765	5854	5942	6030	8 71.2
16	6119	6207	6295	6384	6472	6560	6649	6737	6825	6914	9 80.1
17	7002	7090	7179	7267	7355	7444	7532	7620	7709	7797	
18	7885	7974	8062	8150	8238	8327	8415	8503	8592	8680	
19	8768	8857	8945	9033	9121	9210	9298	9386	9474	9563	
4920	9651	9739	9828	9916	0004	0092	0181	0269	0357	0445	
21	692 0534	0622	0710	0798	0887	0975	1063	1151	1240	1328	88
22	1416	1504	1593	1681	1769	1857	1945	2034	2122	2210	1 8.8
23	2298	2387	2475	2563	2651	2739	2828	2916	3004	3092	2 17.6
24	3180	3269	3357	3445	3533	3621	3710	3798	3886	3974	3 26.4
25	4062	4151	4239	4327	4415	4503	4591	4680	4768	4856	4 35.2
26	4944	5032	5120	5209	5297	5385	5473	5561	5649	5737	5 44.0
27	5826	5914	6002	6090	6178	6266	6354	6443	6531	6619	6 52.8
28	6707	6795	6883	6971	7059	7148	7236	7324	7412	7500	7 61.6
29	7588	7676	7764	7853	7941	8029	8117	8205	8293	8381	8 70.4
4930	8469	8557	8645	8733	8822	8910	8998	9086	9174	9262	9 79.2
31	9350	9438	9526	9614	9702	9790	9878	9967	0055	0143	
32	693 0231	0319	0407	0495	0583	0671	0759	0847	0935	1023	
33	1111	1199	1287	1375	1463	1551	1639	1727	1815	1903	
34	1991	2079	2167	2256	2344	2432	2520	2608	2696	2784	
35	2872	2960	3048	3136	3224	3312	3400	3488	3576	3664	
36	3752	3839	3927	4015	4103	4191	4279	4367	4455	4543	
37	4631	4719	4807	4895	4983	5071	5159	5247	5335	5423	87
38	5511	5599	5687	5775	5863	5951	6039	6126	6214	6302	1 8.7
39	6390	6478	6566	6654	6742	6830	6918	7006	7094	7182	2 17.4
4940	7269	7357	7445	7533	7621	7709	7797	7885	7973	8061	3 26.1
41	8149	8236	8324	8412	8500	8588	8676	8764	8852	8940	4 34.8
42	9027	9115	9203	9291	9379	9467	9555	9643	9730	9818	5 43.5
43	9906	9994	0082	0170	0258	0345	0433	0521	0609	0697	6 52.2
44	694 0785	0872	0960	1048	1136	1224	1312	1399	1487	1575	7 60.9
45	1663	1751	1839	1926	2014	2102	2190	2278	2366	2453	8 69.6
46	2541	2629	2717	2805	2892	2980	3068	3156	3244	3331	9 78.3
47	3419	3507	3595	3682	3770	3858	3946	4034	4121	4209	
48	4297	4385	4472	4560	4648	4736	4824	4911	4999	5087	
49	5175	5262	5350	5438	5526	5613	5701	5789	5877	5964	
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4950	694 6052	6140	6227	6315	6403	6491	6578	6666	6754	6842	
51	6929	7017	7105	7192	7280	7368	7456	7543	7631	7719	
52	7806	7894	7982	8069	8157	8245	8333	8420	8508	8596	
53	8683	8771	8859	8946	9034	9122	9209	9297	9385	9472	
54	9560	9648	9735	9823	9911	9998	0086	0174	0261	0349	
55	695 0437	0524	0612	0700	0787	0875	0962	1050	1138	1225	
56	1313	1401	1488	1576	1663	1751	1839	1926	2014	2102	
57	2189	2277	2364	2452	2540	2627	2715	2802	2890	2978	88
58	3065	3153	3240	3328	3416	3503	3591	3678	3766	3854	1 8.8
59	3941	4029	4116	4204	4291	4379	4467	4554	4642	4729	2 17.6
4960	4817	4904	4992	5079	5167	5255	5342	5430	5517	5605	3 26.4
61	5692	5780	5867	5955	6042	6130	6217	6305	6393	6480	4 35.2
62	6568	6655	6743	6830	6918	7005	7093	7180	7268	7355	5 44.0
63	7443	7530	7618	7705	7793	7880	7968	8055	8143	8230	6 52.8
64	8318	8405	8493	8580	8668	8755	8843	8930	9018	9105	7 61.6
65	9193	9280	9367	9455	9542	9630	9717	9805	9892	9980	8 70.4
66	696 0067	0155	0242	0330	0417	0504	0592	0679	0767	0854	9 79.2
67	0942	1029	1116	1204	1291	1379	1466	1554	1641	1728	
68	1816	1903	1991	2078	2166	2253	2340	2428	2515	2603	
69	2690	2777	2865	2952	3040	3127	3214	3302	3389	3477	
4970	3564	3651	3739	3826	3913	4001	4088	4176	4263	4350	
71	4438	4525	4612	4700	4787	4874	4962	5049	5137	5224	87
72	5311	5399	5486	5573	5661	5748	5835	5923	6010	6097	1 8.7
73	6185	6272	6359	6447	6534	6621	6709	6796	6883	6970	2 17.4
74	7058	7145	7232	7320	7407	7494	7582	7669	7756	7844	3 26.1
75	7931	8018	8105	8193	8280	8367	8455	8542	8629	8716	4 34.8
76	8804	8891	8978	9066	9153	9240	9327	9415	9502	9589	5 43.5
77	9676	9764	9851	9938	0025	0113	0200	0287	0374	0462	6 52.2
78	697 0549	0636	0723	0811	0898	0985	1072	1160	1247	1334	7 60.9
79	1421	1508	1596	1683	1770	1857	1945	2032	2119	2206	8 69.6
4980	2293	2381	2468	2555	2642	2729	2817	2904	2991	3078	9 78.3
81	3165	3253	3340	3427	3514	3601	3689	3776	3863	3950	
82	4037	4124	4212	4299	4386	4473	4560	4647	4735	4822	
83	4909	4996	5083	5170	5257	5345	5432	5519	5606	5693	
84	5780	5867	5955	6042	6129	6216	6303	6390	6477	6565	
85	6652	6739	6826	6913	7000	7087	7174	7261	7349	7436	
86	7523	7610	7697	7784	7871	7958	8045	8132	8220	8307	86
87	8394	8481	8568	8655	8742	8829	8916	9003	9090	9177	1 8.6
88	9264	9352	9439	9526	9613	9700	9787	9874	9961	0048	2 17.2
89	698 0135	0222	0309	0396	0483	0570	0657	0744	0831	0918	3 25.8
4990	1005	1092	1180	1267	1354	1441	1528	1615	1702	1789	4 34 4
91	1876	1963	2050	2137	2224	2311	2398	2485	2572	2659	5 43.0
92	2746	2833	2920	3007	3094	3181	3268	3355	3442	3529	6 51 6
93	3616	3703	3790	3877	3964	4051	4138	4224	4311	4398	7 60.2
94	4485	4572	4659	4746	4833	4920	5007	5094	5181	5268	8 68.8
95	5355	5442	5529	5616	5703	5790	5877	5964	6050	6137	9 77.4
96	6224	6311	6398	6485	6572	6659	6746	6833	6920	7007	
97	7093	7180	7267	7354	7441	7528	7615	7702	7789	7876	
98	7963	8049	8136	8223	8310	8397	8484	8571	8658	8744	
99	8831	8918	9005	9092	9179	9266	9353	9439	9526	9613	
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5000	698 9700	9787	9874	9961	$\bar{0}047$	$\bar{0}134$	$\bar{0}221$	$\bar{0}308$	$\bar{0}395$	$\bar{0}482$	
01	699 0569	0655	0742	0829	0916	1003	1090	1176	1263	1350	
02	1437	1524	1611	1697	1784	1871	1958	2045	2131	2218	
03	2305	2392	2479	2565	2652	2739	2826	2913	2999	3086	
04	3173	3260	3347	3433	3520	3607	3694	3780	3867	3954	
05	4041	4128	4214	4301	4388	4475	4561	4648	4735	4822	
06	4908	4995	5082	5169	5255	5342	5429	5516	5602	5689	
07	5776	5863	5949	6036	6123	6210	6296	6383	6470	6556	
08	6643	6730	6817	6903	6990	7077	7163	7250	7337	7424	
09	7510	7597	7684	7770	7857	7944	8031	8117	8204	8291	
5010	8377	8464	8551	8637	8724	8811	8897	8984	9071	9157	
11	9244	9331	9417	9504	9591	9677	9764	9851	9937	$\bar{0}024$	87
12	700 0111	0197	0284	0371	0457	0544	0630	0717	0804	0890	1 8.7
13	0977	1064	1150	1237	1324	1410	1497	1583	1670	1757	2 17.4
14	1843	1930	2017	2103	2190	2276	2363	2450	2536	2623	3 26.1
15	2709	2796	2883	2969	3056	3142	3229	3316	3402	3489	4 34.8
16	3575	3662	3748	3835	3922	4008	4095	4181	4268	4354	5 43.5
17	4441	4528	4614	4701	4787	4874	4960	5047	5133	5220	6 52.2
18	5307	5393	5480	5566	5653	5739	5826	5912	5999	6085	7 60.9
19	6172	6258	6345	6432	6518	6605	6691	6778	6864	6951	8 69.6
5020	7037	7124	7210	7297	7383	7470	7556	7643	7729	7816	9 78.3
21	7902	7989	8075	8162	8248	8335	8421	8508	8594	8681	
22	8767	8854	8940	9027	9113	9199	9286	9372	9459	9545	
23	9632	9718	9805	9891	9978	$\bar{0}064$	$\bar{0}151$	$\bar{0}237$	$\bar{0}323$	$\bar{0}410$	
24	701 0496	0583	0669	0756	0842	0929	1015	1101	1188	1274	
25	1361	1447	1534	1620	1706	1793	1879	1966	2052	2138	
26	2225	2311	2398	2484	2570	2657	2743	2830	2916	3002	
27	3089	3175	3262	3348	3434	3521	3607	3694	3780	3866	
28	3953	4039	4125	4212	4298	4385	4471	4557	4644	4730	
29	4816	4903	4989	5075	5162	5248	5334	5421	5507	5594	
5030	5680	5766	5853	5939	6025	6112	6198	6284	6371	6457	
31	6543	6629	6716	6802	6888	6975	7061	7147	7234	7320	86
32	7406	7493	7579	7665	7752	7838	7924	8010	8097	8183	1 8.6
33	8269	8356	8442	8528	8614	8701	8787	8873	8960	9046	2 17.2
34	9132	9218	9305	9391	9477	9563	9650	9736	9822	9908	3 25.8
35	9995	$\bar{0}081$	$\bar{0}167$	$\bar{0}254$	$\bar{0}340$	$\bar{0}426$	$\bar{0}512$	$\bar{0}598$	$\bar{0}685$	$\bar{0}771$	4 34.4
36	702 0857	0943	1030	1116	1202	1288	1375	1461	1547	1633	5 43.0
37	1720	1806	1892	1978	2064	2151	2237	2323	2409	2495	6 51.6
38	2582	2668	2754	2840	2926	3013	3099	3185	3271	3357	7 60.2
39	3444	3530	3616	3702	3788	3874	3961	4047	4133	4219	8 68.8
5040	4305	4392	4478	4564	4650	4736	4822	4909	4995	5081	9 77.4
41	5167	5253	5339	5425	5512	5598	5684	5770	5856	5942	
42	6028	6115	6201	6287	6373	6459	6545	6631	6717	6804	
43	6890	6976	7062	7148	7234	7320	7406	7492	7579	7665	
44	7751	7837	7923	8009	8095	8181	8267	8353	8440	8526	
45	8612	8698	8784	8870	8956	9042	9128	9214	9300	9386	
46	9472	9559	9645	9731	9817	9903	9989	$\bar{0}075$	$\bar{0}161$	$\bar{0}247$	
47	703 0333	0419	0505	0591	0677	0763	0849	0935	1021	1107	
48	1193	1279	1366	1452	1538	1624	1710	1796	1882	1968	
49	2054	2140	2226	2312	2398	2484	2570	2656	2742	2828	
5050	2914	3000	3086	3172	3258	3344	3430	3516	3602	3688	
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5050	703 2914	3000	3086	3172	3258	3344	3430	3516	3602	3688	
51	3774	3860	3946	4032	4118	4204	4290	4376	4461	4547	
52	4633	4719	4805	4891	4977	5063	5149	5235	5321	5407	
53	5493	5579	5665	5751	5837	5923	6009	6095	6181	6266	
54	6352	6438	6524	6610	6696	6782	6868	6954	7040	7126	
55	7212	7298	7383	7469	7555	7641	7727	7813	7899	7985	
56	8071	8157	8242	8328	8414	8500	8586	8672	8758	8844	
57	8930	9015	9101	9187	9273	9359	9445	9531	9617	9702	
58	9788	9874	9960	0046	0132	0218	0303	0389	0475	0561	
59	704 0647	0733	0818	0904	0990	1076	1162	1248	1334	1419	
5060	1505	1591	1677	1763	1848	1934	2020	2106	2192	2278	
61	2363	2449	2535	2621	2707	2792	2878	2964	3050	3136	
62	3221	3307	3393	3479	3565	3650	3736	3822	3908	3993	86
63	4079	4165	4251	4337	4422	4508	4594	4680	4765	4851	1 8.6
64	4937	5023	5108	5194	5280	5366	5452	5537	5623	5709	2 17.2
65	5794	5880	5966	6052	6137	6223	6309	6395	6480	6566	3 25.8
66	6652	6738	6823	6909	6995	7080	7166	7252	7338	7423	4 34.4
67	7509	7595	7680	7766	7852	7938	8023	8109	8195	8280	5 43.0
68	8366	8452	8537	8623	8709	8795	8880	8966	9052	9137	6 51.6
69	9223	9309	9394	9480	9566	9651	9737	9823	9908	9994	7 60.2
5070	705 0080	0165	0251	0337	0422	0508	0594	0679	0765	0850	8 68.8
71	0936	1022	1107	1193	1279	1364	1450	1536	1621	1707	9 77.4
72	1792	1878	1964	2049	2135	2221	2306	2392	2477	2563	
73	2649	2734	2820	2905	2991	3077	3162	3248	3333	3419	
74	3505	3590	3676	3761	3847	3933	4018	4104	4189	4275	
75	4360	4446	4532	4617	4703	4788	4874	4959	5045	5131	
76	5216	5302	5387	5473	5558	5644	5729	5815	5901	5986	
77	6072	6157	6243	6328	6414	6499	6585	6670	6756	6841	
78	6927	7012	7098	7184	7269	7355	7440	7526	7611	7697	
79	7782	7868	7953	8039	8124	8210	8295	8381	8466	8552	
5080	8637	8723	8808	8894	8979	9065	9150	9236	9321	9406	
81	9492	9577	9663	9748	9834	9919	0005	0090	0176	0261	
82	706 0347	0432	0518	0603	0688	0774	0859	0945	1030	1116	85
83	1201	1287	1372	1457	1543	1628	1714	1799	1885	1970	1 8.5
84	2055	2141	2226	2312	2397	2483	2568	2653	2739	2824	2 17.0
85	2910	2995	3080	3166	3251	3337	3422	3507	3593	3678	3 25.5
86	3764	3849	3934	4020	4105	4190	4276	4361	4447	4532	4 34.0
87	4617	4703	4788	4873	4959	5044	5130	5215	5300	5386	5 42.5
88	5471	5556	5642	5727	5812	5898	5983	6068	6154	6239	6 51.0
89	6325	6410	6495	6581	6666	6751	6837	6922	7007	7092	7 59.5
5090	7178	7263	7348	7434	7519	7604	7690	7775	7860	7946	8 68.0
91	8031	8116	8202	8287	8372	8457	8543	8628	8713	8799	9 76.5
92	8884	8969	9055	9140	9225	9310	9396	9481	9566	9651	
93	9737	9822	9907	9993	0078	0163	0248	0334	0419	0504	
94	707 0589	0675	0760	0845	0930	1016	1101	1186	1271	1357	
95	1442	1527	1612	1698	1783	1868	1953	2039	2124	2209	
96	2294	2379	2465	2550	2635	2720	2805	2891	2976	3061	
97	3146	3232	3317	3402	3487	3572	3658	3743	3828	3913	
98	3998	4083	4169	4254	4339	4424	4509	4595	4680	4765	
99	4850	4935	5020	5106	5191	5276	5361	5446	5531	5617	
5100	5702	5787	5872	5957	6042	6128	6213	6298	6383	6468	
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5100	707 5702	5787	5872	5957	6042	6128	6213	6298	6383	6468	
01	6553	6638	6724	6809	6894	6979	7064	7149	7234	7319	
02	7405	7490	7575	7660	7745	7830	7915	8000	8085	8171	
03	8256	8341	8426	8511	8596	8681	8766	8851	8936	9022	
04	9107	9192	9277	9362	9447	9532	9617	9702	9787	9872	
05	9957	0043	0128	0213	0298	0383	0468	0553	0638	0723	
06	708 0808	0893	0978	1063	1148	1233	1318	1403	1488	1574	
07	1659	1744	1829	1914	1999	2084	2169	2254	2339	2424	86
08	2509	2594	2679	2764	2849	2934	3019	3104	3189	3274	1 8.6
09	3359	3444	3529	3614	3699	3784	3869	3954	4039	4124	2 17.2
5110	4209	4294	4379	4464	4549	4634	4719	4804	4889	4974	3 25.8
11	5059	5144	5229	5314	5399	5484	5569	5654	5739	5823	4 34.4
12	5908	5993	6078	6163	6248	6333	6418	6503	6588	6673	5 43.0
13	6758	6843	6928	7013	7098	7183	7268	7352	7437	7522	6 51.6
14	7607	7692	7777	7862	7947	8032	8117	8202	8287	8371	7 60.2
15	8456	8541	8626	8711	8796	8881	8966	9051	9136	9220	8 68.8
16	9305	9390	9475	9560	9645	9730	9815	9900	9984	0069	9 77.4
17	709 0154	0239	0324	0409	0494	0579	0663	0748	0833	0918	
18	1003	1088	1173	1257	1342	1427	1512	1597	1682	1766	
19	1851	1936	2021	2106	2191	2275	2360	2445	2530	2615	
5120	2700	2784	2869	2954	3039	3124	3209	3293	3378	3463	
21	3548	3633	3717	3802	3887	3972	4057	4141	4226	4311	85
22	4396	4481	4565	4650	4735	4820	4904	4989	5074	5159	1 8.5
23	5244	5328	5413	5498	5583	5667	5752	5837	5922	6006	2 17.0
24	6091	6176	6261	6345	6430	6515	6600	6684	6769	6854	3 25.5
25	6939	7023	7108	7193	7278	7362	7447	7532	7617	7701	4 34.0
26	7786	7871	7955	8040	8125	8210	8294	8379	8464	8548	5 42.5
27	8633	8718	8803	8887	8972	9057	9141	9226	9311	9395	6 51.0
28	9480	9565	9650	9734	9819	9904	9988	0073	0158	0242	7 59.5
29	710 0327	0412	0496	0581	0666	0750	0835	0920	1004	1089	8 68.0
5130	1174	1258	1343	1428	1512	1597	1682	1766	1851	1936	9 76.5
31	2020	2105	2189	2274	2359	2443	2528	2613	2697	2782	
32	2866	2951	3036	3120	3205	3290	3374	3459	3543	3628	
33	3713	3797	3882	3966	4051	4136	4220	4305	4389	4474	
34	4559	4643	4728	4812	4897	4982	5066	5151	5235	5320	
35	5404	5489	5574	5658	5743	5827	5912	5996	6081	6166	
36	6250	6335	6419	6504	6588	6673	6757	6842	6927	7011	
37	7096	7180	7265	7349	7434	7518	7603	7687	7772	7856	84
38	7941	8026	8110	8195	8279	8364	8448	8533	8617	8702	1 8.4
39	8786	8871	8955	9040	9124	9209	9293	9378	9462	9547	2 16.8
5140	9631	9716	9800	9885	9969	0054	0138	0223	0307	0392	3 25.2
41	711 0476	0561	0645	0729	0814	0898	0983	1067	1152	1236	4 33.6
42	1321	1405	1490	1574	1659	1743	1827	1912	1996	2081	5 42.0
43	2165	2250	2334	2419	2503	2587	2672	2756	2841	2925	6 50.4
44	3010	3094	3178	3263	3347	3432	3516	3601	3685	3769	7 58.8
45	3854	3938	4023	4107	4191	4276	4360	4445	4529	4613	8 67.2
46	4698	4782	4867	4951	5035	5120	5204	5289	5373	5457	9 75.6
47	5542	5626	5710	5795	5879	5964	6048	6132	6217	6301	
48	6385	6470	6554	6638	6723	6807	6892	6976	7060	7145	
49	7229	7313	7398	7482	7566	7651	7735	7819	7904	7988	
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51	8915	9000	9084	9168	9253	9337	9421	9506	9590	9674	
52	9759	9843	9927	0011	0096	0180	0264	0349	0433	0517	
53	712 0601	0686	0770	0854	0939	1023	1107	1191	1276	1360	
54	1444	1528	1613	1697	1781	1865	1950	2034	2118	2202	
55	2287	2371	2455	2539	2624	2708	2792	2876	2961	3045	
56	3129	3213	3298	3382	3466	3550	3634	3719	3803	3887	
57	3971	4056	4140	4224	4308	4392	4477	4561	4645	4729	85
58	4813	4898	4982	5066	5150	5234	5319	5403	5487	5571	1 8.5
59	5655	5739	5824	5908	5992	6076	6160	6245	6329	6413	2 17.0
5160	6497	6581	6665	6750	6834	6918	7002	7086	7170	7254	3 25.5
61	7339	7423	7507	7591	7675	7759	7843	7928	8012	8096	4 34.0
62	8180	8264	8348	8432	8517	8601	8685	8769	8853	8937	5 42.5
63	9021	9105	9189	9274	9358	9442	9526	9610	9694	9778	6 51.0
64	9862	9946	0031	0115	0199	0283	0367	0451	0535	0619	7 59.5
65	713 0703	0787	0871	0956	1040	1124	1208	1292	1376	1460	8 68.0
66	1544	1628	1712	1796	1880	1964	2048	2132	2217	2301	9 76.5
67	2385	2469	2553	2637	2721	2805	2889	2973	3057	3141	
68	3225	3309	3393	3477	3561	3645	3729	3813	3897	3981	
69	4065	4149	4233	4317	4401	4485	4569	4653	4737	4821	
5170	4905	4989	5073	5157	5241	5325	5409	5493	5577	5661	
71	5745	5829	5913	5997	6081	6165	6249	6333	6417	6501	84
72	6585	6669	6753	6837	6921	7005	7089	7173	7257	7341	1 8.4
73	7425	7509	7593	7677	7761	7845	7928	8012	8096	8180	2 16.8
74	8264	8348	8432	8516	8600	8684	8768	8852	8936	9020	3 25.2
75	9104	9187	9271	9355	9439	9523	9607	9691	9775	9859	4 33.6
76	9943	0027	0110	0194	0278	0362	0446	0530	0614	0698	5 42.0
77	714 0782	0866	0949	1033	1117	1201	1285	1369	1453	1537	6 50.4
78	1620	1704	1788	1872	1956	2040	2124	2208	2291	2375	7 58.8
79	2459	2543	2627	2711	2795	2878	2962	3046	3130	3214	8 67.2
5180	3298	3381	3465	3549	3633	3717	3801	3884	3968	4052	9 75.6
81	4136	4220	4304	4387	4471	4555	4639	4723	4806	4890	
82	4974	5058	5142	5226	5309	5393	5477	5561	5645	5728	
83	5812	5896	5980	6063	6147	6231	6315	6399	6482	6566	
84	6650	6734	6817	6901	6985	7069	7153	7236	7320	7404	
85	7488	7571	7655	7739	7823	7906	7990	8074	8158	8241	
86	8325	8409	8493	8576	8660	8744	8828	8911	8995	9079	83
87	9162	9246	9330	9414	9497	9581	9665	9749	9832	9916	1 8.3
88	715 0000	0083	0167	0251	0335	0418	0502	0586	0669	0753	2 16.6
89	0837	0920	1004	1088	1171	1255	1339	1423	1506	1590	3 24.9
5190	1674	1757	1841	1925	2008	2092	2176	2259	2343	2427	4 33.2
91	2510	2594	2678	2761	2845	2929	3012	3096	3180	3263	5 41.5
92	3347	3430	3514	3598	3681	3765	3849	3932	4016	4100	6 49.8
93	4183	4267	4350	4434	4518	4601	4685	4769	4852	4936	7 58.1
94	5019	5103	5187	5270	5354	5438	5521	5605	5688	5772	8 66.4
95	5856	5939	6023	6106	6190	6273	6357	6441	6524	6608	9 74.7
96	6691	6775	6859	6942	7026	7109	7193	7276	7360	7444	
97	7527	7611	7694	7778	7861	7945	8029	8112	8196	8279	
98	8363	8446	8530	8613	8697	8780	8864	8948	9031	9115	
99	9198	9282	9365	9449	9532	9616	9699	9783	9866	9950	
5200	716 0033	0117	0200	0284	0367	0451	0535	0618	0702	0785	
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01	0869	0952	1036	1119	1203	1286	1370	1453	1537	1620	
02	1703	1787	1870	1954	2037	2121	2204	2288	2371	2455	
03	2538	2622	2705	2789	2872	2956	3039	3123	3206	3289	
04	3373	3456	3540	3623	3707	3790	3874	3957	4040	4124	
05	4207	4291	4374	4458	4541	4625	4708	4791	4875	4958	
06	5042	5125	5208	5292	5375	5459	5542	5626	5709	5792	
07	5876	5959	6043	6126	6209	6293	6376	6460	6543	6626	84
08	6710	6793	6877	6960	7043	7127	7210	7293	7377	7460	1 8.4
09	7544	7627	7710	7794	7877	7960	8044	8127	8211	8294	2 16.8
5210	8377	8461	8544	8627	8711	8794	8877	8961	9044	9127	3 25.2
11	9211	9294	9377	9461	9544	9627	9711	9794	9877	9961	4 33.6
12	717 0044	0127	0211	0294	0377	0461	0544	0627	0711	0794	5 42.0
13	0877	0961	1044	1127	1210	1294	1377	1460	1544	1627	6 50.4
14	1710	1794	1877	1960	2043	2127	2210	2293	2377	2460	7 58.8
15	2543	2626	2710	2793	2876	2959	3043	3126	3209	3293	8 67.2
16	3376	3459	3542	3626	3709	3792	3875	3959	4042	4125	9 75.6
17	4208	4292	4375	4458	4541	4625	4708	4791	4874	4958	
18	5041	5124	5207	5290	5374	5457	5540	5623	5707	5790	
19	5873	5956	6039	6123	6206	6289	6372	6455	6539	6622	
5220	6705	6788	6871	6955	7038	7121	7204	7287	7371	7454	
21	7537	7620	7703	7786	7870	7953	8036	8119	8202	8286	83
22	8369	8452	8535	8618	8701	8784	8868	8951	9034	9117	1 8.3
23	9200	9283	9367	9450	9533	9616	9699	9782	9865	9949	2 16.6
24	718 0032	0115	0198	0281	0364	0447	0530	0614	0697	0780	3 24.9
25	0863	0946	1029	1112	1195	1279	1362	1445	1528	1611	4 33.2
26	1694	1777	1860	1943	2026	2110	2193	2276	2359	2442	5 41.5
27	2525	2608	2691	2774	2857	2940	3023	3107	3190	3273	6 49.8
28	3356	3439	3522	3605	3688	3771	3854	3937	4020	4103	7 58.1
29	4186	4269	4353	4436	4519	4602	4685	4768	4851	4934	8 66.4
5230	5017	5100	5183	5266	5349	5432	5515	5598	5681	5764	9 74.7
31	5847	5930	6013	6096	6179	6262	6345	6428	6511	6594	
32	6677	6760	6843	6926	7009	7092	7175	7258	7341	7424	
33	7507	7590	7673	7756	7839	7922	8005	8088	8171	8254	
34	8337	8420	8503	8586	8669	8752	8835	8918	9001	9084	
35	9167	9250	9333	9416	9499	9582	9665	9748	9830	9913	
36	9996	$\bar{0}079$	$\bar{0}162$	$\bar{0}245$	$\bar{0}328$	$\bar{0}411$	$\bar{0}494$	$\bar{0}577$	$\bar{0}660$	$\bar{0}743$	82
37	719 0826	0909	0992	1075	1157	1240	1323	1406	1489	1572	1 8.2
38	1655	1738	1821	1904	1987	2069	2152	2235	2318	2401	2 16.4
39	2484	2567	2650	2733	2816	2898	2981	3064	3147	3230	3 24.6
5240	3313	3396	3479	3562	3644	3727	3810	3893	3976	4059	4 32.8
41	4142	4224	4307	4390	4473	4556	4639	4722	4804	4887	5 41.0
42	4970	5053	5136	5219	5302	5384	5467	5550	5633	5716	6 49.2
43	5799	5881	5964	6047	6130	6213	6296	6378	6461	6544	7 57.4
44	6627	6710	6792	6875	6958	7041	7124	7207	7289	7372	8 65.6
45	7455	7538	7621	7703	7786	7869	7952	8034	8117	8200	9 73.8
46	8283	8366	8448	8531	8614	8697	8780	8862	8945	9028	
47	9111	9193	9276	9359	9442	9524	9607	9690	9773	9856	
48	9938	$\bar{0}021$	$\bar{0}104$	$\bar{0}187$	$\bar{0}269$	$\bar{0}352$	$\bar{0}435$	$\bar{0}518$	$\bar{0}600$	$\bar{0}683$	
49	720 0766	0848	0931	1014	1097	1179	1262	1345	1428	1510	
5250	1593	1676	1758	1841	1924	2007	2089	2172	2255	2337	
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5250	720 1593	1676	1758	1841	1924	2007	2089	2172	2255	2337	
51	2420	2503	2586	2668	2751	2834	2916	2999	3082	3164	
52	3247	3330	3413	3495	3578	3661	3743	3826	3909	3991	
53	4074	4157	4239	4322	4405	4487	4570	4653	4735	4818	
54	4901	4983	5066	5149	5231	5314	5397	5479	5562	5645	
55	5727	5810	5892	5975	6058	6140	6223	6306	6388	6471	
56	6554	6636	6719	6801	6884	6967	7049	7132	7215	7297	
57	7380	7462	7545	7628	7710	7793	7875	7958	8041	8123	83
58	8206	8288	8371	8454	8536	8619	8701	8784	8867	8949	1 8.3
59	9032	9114	9197	9279	9362	9445	9527	9610	9692	9775	2 16.6
5260	9857	9940	0023	0105	0188	0270	0353	0435	0518	0600	3 24.9
61	721 0683	0766	0848	0931	1013	1096	1178	1261	1343	1426	4 33.2
62	1508	1591	1674	1756	1839	1921	2004	2086	2169	2251	5 41.5
63	2334	2416	2499	2581	2664	2746	2829	2911	2994	3076	6 49.8
64	3159	3241	3324	3406	3489	3571	3654	3736	3819	3901	7 58.1
65	3984	4066	4149	4231	4314	4396	4479	4561	4644	4726	8 66.4
66	4809	4891	4973	5056	5138	5221	5303	5386	5468	5551	9 74.7
67	5633	5716	5798	5881	5963	6045	6128	6210	6293	6375	
68	6458	6540	6623	6705	6787	6870	6952	7035	7117	7200	
69	7282	7364	7447	7529	7612	7694	7777	7859	7941	8024	
5270	8106	8189	8271	8353	8436	8518	8601	8683	8765	8848	
71	8930	9013	9095	9177	9260	9342	9424	9507	9589	9672	82
72	9754	9836	9919	0001	0084	0166	0248	0331	0413	0495	1 8.2
73	722 0578	0660	0742	0825	0907	0990	1072	1154	1237	1319	2 16.4
74	1401	1484	1566	1648	1731	1813	1895	1978	2060	2142	3 24.6
75	2225	2307	2389	2472	2554	2636	2719	2801	2883	2966	4 32.8
76	3048	3130	3212	3295	3377	3459	3542	3624	3706	3789	5 41.0
77	3871	3953	4036	4118	4200	4282	4365	4447	4529	4612	6 49.2
78	4694	4776	4858	4941	5023	5105	5188	5270	5352	5434	7 57.4
79	5517	5599	5681	5763	5846	5928	6010	6092	6175	6257	8 65.6
5280	6339	6421	6504	6586	6668	6750	6833	6915	6997	7079	9 73.8
81	7162	7244	7326	7408	7491	7573	7655	7737	7820	7902	
82	7984	8066	8148	8231	8313	8395	8477	8559	8642	8724	
83	8806	8888	8971	9053	9135	9217	9299	9382	9464	9546	
84	9628	9710	9792	9875	9957	0039	0121	0203	0286	0368	
85	723 0450	0532	0614	0696	0779	0861	0943	1025	1107	1189	
86	1272	1354	1436	1518	1600	1682	1765	1847	1929	2011	81
87	2093	2175	2257	2340	2422	2504	2586	2668	2750	2832	1 8.1
88	2914	2997	3079	3161	3243	3325	3407	3489	3571	3654	2 16.2
89	3736	3818	3900	3982	4064	4146	4228	4310	4393	4475	3 24.3
5290	4557	4639	4721	4803	4885	4967	5049	5131	5213	5296	4 32.4
91	5378	5460	5542	5624	5706	5788	5870	5952	6034	6116	5 40.5
92	6198	6280	6362	6445	6527	6609	6691	6773	6855	6937	6 48.6
93	7019	7101	7183	7265	7347	7429	7511	7593	7675	7757	7 56.7
94	7839	7921	8003	8085	8167	8250	8332	8414	8496	8578	8 64.8
95	8660	8742	8824	8906	8988	9070	9152	9234	9316	9398	9 72.9
96	9480	9562	9644	9726	9808	9890	9972	0054	0136	0218	
97	724 0300	0382	0464	0546	0628	0710	0792	0874	0956	1038	
98	1120	1202	1283	1365	1447	1529	1611	1693	1775	1857	
99	1939	2021	2103	2185	2267	2349	2431	2513	2595	2677	
5300	2759	2841	2923	3005	3086	3168	3250	3332	3414	3496	
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5300	724 2759	2841	2923	3005	3086	3168	3250	3332	3414	3496	
01	3578	3660	3742	3824	3906	3988	4070	4151	4233	4315	
02	4397	4479	4561	4643	4725	4807	4889	4971	5052	5134	
03	5216	5298	5380	5462	5544	5626	5708	5790	5871	5953	
04	6035	6117	6199	6281	6363	6445	6526	6608	6690	6772	
05	6854	6936	7018	7099	7181	7263	7345	7427	7509	7591	
06	7672	7754	7836	7918	8000	8082	8164	8245	8327	8409	
07	8491	8573	8655	8736	8818	8900	8982	9064	9146	9227	
08	9309	9391	9473	9555	9636	9718	9800	9882	9964	$\bar{0}045$	
09	725 0127	0209	0291	0373	0454	0536	0618	0700	0782	0863	
5310	0945	1027	1109	1191	1272	1354	1436	1518	1599	1681	
11	1763	1845	1927	2008	2090	2172	2254	2335	2417	2499	82
12	2581	2662	2744	2826	2908	2989	3071	3153	3235	3316	1 8.2
13	3398	3480	3562	3643	3725	3807	3889	3970	4052	4134	2 16.4
14	4216	4297	4379	4461	4542	4624	4706	4788	4869	4951	3 24.6
15	5033	5114	5196	5278	5360	5441	5523	5605	5686	5768	4 32.8
16	5850	5931	6013	6095	6176	6258	6340	6422	6503	6585	5 41.0
17	6667	6748	6830	6912	6993	7075	7157	7238	7320	7402	6 49.2
18	7483	7565	7647	7728	7810	7892	7973	8055	8137	8218	7 57.4
19	8300	8382	8463	8545	8626	8708	8790	8871	8953	9035	8 65.6
5320	9116	9198	9280	9361	9443	9524	9606	9688	9769	9851	9 73.8
21	9933	$\bar{0}014$	$\bar{0}096$	$\bar{0}177$	$\bar{0}259$	$\bar{0}341$	$\bar{0}422$	$\bar{0}504$	$\bar{0}585$	$\bar{0}667$	
22	726 0749	0830	0912	0994	1075	1157	1238	1320	1401	1483	
23	1565	1646	1728	1809	1891	1973	2054	2136	2217	2299	
24	2380	2462	2544	2625	2707	2788	2870	2951	3033	3115	
25	3196	3278	3359	3441	3522	3604	3685	3767	3849	3930	
26	4012	4093	4175	4256	4338	4419	4501	4582	4664	4745	
27	4827	4908	4990	5072	5153	5235	5316	5398	5479	5561	
28	5642	5724	5805	5887	5968	6050	6131	6213	6294	6376	
29	6457	6539	6620	6702	6783	6865	6946	7028	7109	7191	
5330	7272	7354	7435	7517	7598	7679	7761	7842	7924	8005	
31	8087	8168	8250	8331	8413	8494	8576	8657	8739	8820	81
32	8901	8983	9064	9146	9227	9309	9390	9472	9553	9634	1 8.1
33	9716	9797	9879	9960	$\bar{0}042$	$\bar{0}123$	$\bar{0}204$	$\bar{0}286$	$\bar{0}367$	$\bar{0}449$	2 16.2
34	727 0530	0612	0693	0774	0856	0937	1019	1100	1181	1263	3 24.3
35	1344	1426	1507	1588	1670	1751	1833	1914	1995	2077	4 32.4
36	2158	2240	2321	2402	2484	2565	2647	2728	2809	2891	5 40.5
37	2972	3053	3135	3216	3298	3379	3460	3542	3623	3704	6 48.6
38	3786	3867	3948	4030	4111	4192	4274	4355	4437	4518	7 56.7
39	4599	4681	4762	4843	4925	5006	5087	5169	5250	5331	8 64.8
5340	5413	5494	5575	5657	5738	5819	5901	5982	6063	6144	9 72.9
41	6226	6307	6388	6470	6551	6632	6714	6795	6876	6958	
42	7039	7120	7201	7283	7364	7445	7527	7608	7689	7770	
43	7852	7933	8014	8096	8177	8258	8339	8421	8502	8583	
44	8664	8746	8827	8908	8990	9071	9152	9233	9315	9396	
45	9477	9558	9640	9721	9802	9883	9965	$\bar{0}046$	$\bar{0}127$	$\bar{0}208$	
46	728 0290	0371	0452	0533	0614	0696	0777	0858	0939	1021	
47	1102	1183	1264	1346	1427	1508	1589	1670	1752	1833	
48	1914	1995	2076	2158	2239	2320	2401	2482	2564	2645	
49	2726	2807	2888	2970	3051	3132	3213	3294	3375	3457	
5350	3538	3619	3700	3781	3863	3944	4025	4106	4187	4268	
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5350	728 3538	3619	3700	3781	3863	3944	4025	4106	4187	4268	
51	4350	4431	4512	4593	4674	4755	4836	4918	4999	5080	
52	5161	5242	5323	5404	5486	5567	5648	5729	5810	5891	
53	5972	6054	6135	6216	6297	6378	6459	6540	6621	6703	
54	6784	6865	6946	7027	7108	7189	7270	7351	7433	7514	
55	7595	7676	7757	7838	7919	8000	8081	8162	8244	8325	
56	8406	8487	8568	8649	8730	8811	8892	8973	9054	9135	
57	9216	9298	9379	9460	9541	9622	9703	9784	9865	9946	
58	729 0027	0108	0189	0270	0351	0432	0513	0594	0675	0757	
59	0838	0919	1000	1081	1162	1243	1324	1405	1486	1567	
5360	1648	1729	1810	1891	1972	2053	2134	2215	2296	2377	
61	2458	2539	2620	2701	2782	2863	2944	3025	3106	3187	81
62	3268	3349	3430	3511	3592	3673	3754	3835	3916	3997	1 8.1
63	4078	4159	4240	4321	4402	4483	4564	4645	4726	4807	2 16.2
64	4888	4969	5050	5131	5212	5292	5373	5454	5535	5616	3 24.3
65	5697	5778	5859	5940	6021	6102	6183	6264	6345	6426	4 32.4
66	6507	6588	6669	6749	6830	6911	6992	7073	7154	7235	5 40.5
67	7316	7397	7478	7559	7640	7721	7801	7882	7963	8044	6 48.6
68	8125	8206	8287	8368	8449	8530	8610	8691	8772	8853	7 56.7
69	8934	9015	9096	9177	9258	9338	9419	9500	9581	9662	8 64.8
5370	9743	9824	9905	9985	$\bar{0}066$	$\bar{0}147$	$\bar{0}228$	$\bar{0}309$	$\bar{0}390$	$\bar{0}471$	9 72.9
71	730 0552	0632	0713	0794	0875	0956	1037	1118	1198	1279	
72	1360	1441	1522	1603	1683	1764	1845	1926	2007	2088	
73	2168	2249	2330	2411	2492	2573	2653	2734	2815	2896	
74	2977	3057	3138	3219	3300	3381	3461	3542	3623	3704	
75	3785	3865	3946	4027	4108	4189	4269	4350	4431	4512	
76	4593	4673	4754	4835	4916	4997	5077	5158	5239	5320	
77	5400	5481	5562	5643	5723	5804	5885	5966	6046	6127	
78	6208	6289	6369	6450	6531	6612	6692	6773	6854	6935	
79	7015	7096	7177	7258	7338	7419	7500	7581	7661	7742	
5380	7823	7903	7984	8065	8146	8226	8307	8388	8468	8549	
81	8630	8711	8791	8872	8953	9033	9114	9195	9276	9356	80
82	9437	9518	9598	9679	9760	9840	9921	$\bar{0}002$	$\bar{0}082$	$\bar{0}163$	1 8.0
83	731 0244	0324	0405	0486	0567	0647	0728	0809	0889	0970	2 16.0
84	1051	1131	1212	1292	1373	1454	1534	1615	1696	1776	3 24.0
85	1857	1938	2018	2099	2180	2260	2341	2422	2502	2583	4 32.0
86	2663	2744	2825	2905	2986	3067	3147	3228	3309	3389	5 40.0
87	3470	3550	3631	3712	3792	3873	3953	4034	4115	4195	6 48.0
88	4276	4356	4437	4518	4598	4679	4759	4840	4921	5001	7 56.0
89	5082	5162	5243	5324	5404	5485	5565	5646	5727	5807	8 64.0
5390	5888	5968	6049	6129	6210	6291	6371	6452	6532	6613	9 72.0
91	6693	6774	6854	6935	7016	7096	7177	7257	7338	7418	
92	7499	7579	7660	7740	7821	7902	7982	8063	8143	8224	
93	8304	8385	8465	8546	8626	8707	8787	8868	8948	9029	
94	9109	9190	9270	9351	9431	9512	9592	9673	9753	9834	
95	9914	9995	$\bar{0}075$	$\bar{0}156$	$\bar{0}236$	$\bar{0}317$	$\bar{0}397$	$\bar{0}478$	$\bar{0}558$	$\bar{0}639$	
96	732 0719	0800	0880	0961	1041	1122	1202	1283	1363	1444	
97	1524	1605	1685	1766	1846	1927	2007	2087	2168	2248	
98	2329	2409	2490	2570	2651	2731	2812	2892	2972	3053	
99	3133	3214	3294	3375	3455	3535	3616	3696	3777	3857	
5400	3938	4018	4098	4179	4259	4340	4420	4501	4581	4661	
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5400	732 3938	4018	4098	4179	4259	4340	4420	4501	4581	4661	
01	4742	4822	4903	4983	5063	5144	5224	5305	5385	5465	
02	5546	5626	5707	5787	5867	5948	6028	6109	6189	6269	
03	6350	6430	6510	6591	6671	6752	6832	6912	6993	7073	
04	7153	7234	7314	7394	7475	7555	7636	7716	7796	7877	
05	7957	8037	8118	8198	8278	8359	8439	8519	8600	8680	
06	8760	8841	8921	9001	9082	9162	9242	9323	9403	9483	
07	9564	9644	9724	9805	9885	9965	0046	0126	0206	0287	81
08	733 0367	0447	0527	0608	0688	0768	0849	0929	1009	1090	1 8.1
09	1170	1250	1330	1411	1491	1571	1652	1732	1812	1892	2 16.2
5410	1973	2053	2133	2213	2294	2374	2454	2535	2615	2695	3 24.3
11	2775	2856	2936	3016	3096	3177	3257	3337	3417	3498	4 32.4
12	3578	3658	3738	3819	3899	3979	4059	4140	4220	4300	5 40.5
13	4380	4461	4541	4621	4701	4781	4862	4942	5022	5102	6 48.6
14	5183	5263	5343	5423	5503	5584	5664	5744	5824	5904	7 56.7
15	5985	6065	6145	6225	6305	6386	6466	6546	6626	6706	8 64.8
16	6787	6867	6947	7027	7107	7187	7268	7348	7428	7508	9 72.9
17	7588	7669	7749	7829	7909	7989	8069	8150	8230	8310	
18	8390	8470	8550	8630	8711	8791	8871	8951	9031	9111	
19	9192	9272	9352	9432	9512	9592	9672	9752	9833	9913	
5420	9993	0073	0153	0233	0313	0393	0474	0554	0634	0714	
21	734 0794	0874	0954	1034	1115	1195	1275	1355	1435	1515	80
22	1595	1675	1755	1835	1916	1996	2076	2156	2236	2316	1 8.0
23	2396	2476	2556	2636	2716	2796	2877	2957	3037	3117	2 16.0
24	3197	3277	3357	3437	3517	3597	3677	3757	3837	3917	3 24.0
25	3997	4077	4158	4238	4318	4398	4478	4558	4638	4718	4 32.0
26	4798	4878	4958	5038	5118	5198	5278	5358	5438	5518	5 40.0
27	5598	5678	5758	5838	5918	5998	6078	6158	6238	6318	6 48.0
28	6398	6478	6558	6638	6718	6798	6878	6958	7038	7118	7 56.0
29	7198	7278	7358	7438	7518	7598	7678	7758	7838	7918	8 64.0
5430	7998	8078	8158	8238	8318	8398	8478	8558	8638	8718	9 72.0
31	8798	8878	8958	9038	9118	9198	9278	9358	9438	9518	
32	9598	9678	9758	9837	9917	9997	0077	0157	0237	0317	
33	735 0397	0477	0557	0637	0717	0797	0877	0957	1036	1116	
34	1196	1276	1356	1436	1516	1596	1676	1756	1836	1916	
35	1995	2075	2155	2235	2315	2395	2475	2555	2635	2715	
36	2794	2874	2954	3034	3114	3194	3274	3354	3434	3513	79
37	3593	3673	3753	3833	3913	3993	4073	4152	4232	4312	1 7.9
38	4392	4472	4552	4632	4711	4791	4871	4951	5031	5111	2 15.8
39	5191	5270	5350	5430	5510	5590	5670	5749	5829	5909	3 23.7
5440	5989	6069	6149	6228	6308	6388	6468	6548	6628	6707	4 31.6
41	6787	6867	6947	7027	7107	7186	7266	7346	7426	7506	5 39.5
42	7585	7665	7745	7825	7905	7984	8064	8144	8224	8304	6 47.4
43	8383	8463	8543	8623	8702	8782	8862	8942	9022	9101	7 55.3
44	9181	9261	9341	9420	9500	9580	9660	9740	9819	9899	8 63.2
45	9979	0059	0138	0218	0298	0378	0457	0537	0617	0697	9 71.1
46	736 0776	0856	0936	1016	1095	1175	1255	1335	1414	1494	
47	1574	1653	1733	1813	1893	1972	2052	2132	2212	2291	
48	2371	2451	2530	2610	2690	2770	2849	2929	3009	3088	
49	3168	3248	3327	3407	3487	3567	3646	3726	3806	3885	
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51	4762	4841	4921	5001	5080	5160	5240	5319	5399	5479	
52	5558	5638	5718	5797	5877	5957	6036	6116	6196	6275	
53	6355	6435	6514	6594	6674	6753	6833	6912	6992	7072	
54	7151	7231	7311	7390	7470	7549	7629	7709	7788	7868	
55	7948	8027	8107	8186	8266	8346	8425	8505	8584	8664	
56	8744	8823	8903	8982	9062	9142	9221	9301	9380	9460	
57	9540	9619	9699	9778	9858	9937	$\bar{0}017$	$\bar{0}097$	$\bar{0}176$	$\bar{0}256$	
58	737 0335	0415	0494	0574	0654	0733	0813	0892	0972	1051	
59	1131	1210	1290	1370	1449	1529	1608	1688	1767	1847	
5460	1926	2006	2086	2165	2245	2324	2404	2483	2563	2642	
61	2722	2801	2881	2960	3040	3119	3199	3278	3358	3437	80
62	3517	3596	3676	3755	3835	3914	3994	4074	4153	4233	1 8.0
63	4312	4392	4471	4550	4630	4709	4789	4868	4948	5027	2 16.0
64	5107	5186	5266	5345	5425	5504	5584	5663	5743	5822	3 24.0
65	5902	5981	6061	6140	6220	6299	6378	6458	6537	6617	4 32.0
66	6696	6776	6855	6935	7014	7094	7173	7252	7332	7411	5 40.0
67	7491	7570	7650	7729	7808	7888	7967	8047	8126	8206	6 48.0
68	8285	8364	8444	8523	8603	8682	8762	8841	8920	9000	7 56.0
69	9079	9159	9238	9317	9397	9476	9556	9635	9714	9794	8 64.0
5470	9873	9953	$\bar{0}032$	$\bar{0}111$	$\bar{0}191$	$\bar{0}270$	$\bar{0}350$	$\bar{0}429$	$\bar{0}508$	$\bar{0}588$	9 72.0
71	738 0667	0747	0826	0905	0985	1064	1143	1223	1302	1382	
72	1461	1540	1620	1699	1778	1858	1937	2016	2096	2175	
73	2254	2334	2413	2493	2572	2651	2731	2810	2889	2969	
74	3048	3127	3207	3286	3365	3445	3524	3603	3683	3762	
75	3841	3921	4000	4079	4159	4238	4317	4396	4476	4555	
76	4634	4714	4793	4872	4952	5031	5110	5190	5269	5348	
77	5427	5507	5586	5665	5745	5824	5903	5982	6062	6141	
78	6220	6300	6379	6458	6537	6617	6696	6775	6854	6934	
79	7013	7092	7172	7251	7330	7409	7489	7568	7647	7726	
5480	7806	7885	7964	8043	8123	8202	8281	8360	8440	8519	
81	8598	8677	8756	8836	8915	8994	9073	9153	9232	9311	79
82	9390	9470	9549	9628	9707	9786	9866	9945	$\bar{0}024$	$\bar{0}103$	1 7.9
83	739 0182	0262	0341	0420	0499	0578	0658	0737	0816	0895	2 15.8
84	0974	1054	1133	1212	1291	1370	1450	1529	1608	1687	3 23.7
85	1766	1845	1925	2004	2083	2162	2241	2321	2400	2479	4 31.6
86	2558	2637	2716	2796	2875	2954	3033	3112	3191	3270	5 39.5
87	3350	3429	3508	3587	3666	3745	3824	3904	3983	4062	6 47.4
88	4141	4220	4299	4378	4458	4537	4616	4695	4774	4853	7 55.3
89	4932	5011	5091	5170	5249	5328	5407	5486	5565	5644	8 63.2
5490	5723	5803	5882	5961	6040	6119	6198	6277	6356	6435	9 71.1
91	6514	6594	6673	6752	6831	6910	6989	7068	7147	7226	
92	7305	7384	7463	7543	7622	7701	7780	7859	7938	8017	
93	8096	8175	8254	8333	8412	8491	8570	8649	8728	8808	
94	8887	8966	9045	9124	9203	9282	9361	9440	9519	9598	
95	9677	9756	9835	9914	9993	$\bar{0}072$	$\bar{0}151$	$\bar{0}230$	$\bar{0}309$	$\bar{0}388$	
96	740 0467	0546	0625	0704	0783	0862	0941	1020	1099	1178	
97	1257	1336	1415	1494	1573	1652	1731	1810	1889	1968	
98	2047	2126	2205	2284	2363	2442	2521	2600	2679	2758	
99	2837	2916	2995	3074	3153	3232	3311	3390	3469	3548	
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02	5206	5285	5364	5443	5522	5601	5679	5758	5837	5916	
03	5995	6074	6153	6232	6311	6390	6469	6548	6626	6705	
04	6784	6863	6942	7021	7100	7179	7258	7337	7415	7494	
05	7573	7652	7731	7810	7889	7968	8047	8125	8204	8283	
06	8362	8441	8520	8599	8678	8756	8835	8914	8993	9072	
07	9151	9230	9308	9387	9466	9545	9624	9703	9782	9860	
08	9939	0018	0097	0176	0255	0334	0412	0491	0570	0649	
09	741 0728	0807	0885	0964	1043	1122	1201	1280	1358	1437	
5510	1516	1595	1674	1752	1831	1910	1989	2068	2146	2225	
11	2304	2383	2462	2541	2619	2698	2777	2856	2935	3013	79
12	3092	3171	3250	3328	3407	3486	3565	3644	3722	3801	1 7.9
13	3880	3959	4037	4116	4195	4274	4353	4431	4510	4589	2 15.8
14	4668	4746	4825	4904	4983	5061	5140	5219	5298	5376	3 23.7
15	5455	5534	5613	5691	5770	5849	5928	6006	6085	6164	4 31.6
16	6243	6321	6400	6479	6557	6636	6715	6794	6872	6951	5 39.5
17	7030	7109	7187	7266	7345	7423	7502	7581	7660	7738	6 47.4
18	7817	7896	7974	8053	8132	8210	8289	8368	8447	8525	7 55.3
19	8604	8683	8761	8840	8919	8997	9076	9155	9233	9312	8 63.2
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21	742 0177	0256	0335	0413	0492	0571	0649	0728	0807	0885	
22	0964	1043	1121	1200	1279	1357	1436	1515	1593	1672	
23	1750	1829	1908	1986	2065	2144	2222	2301	2379	2458	
24	2537	2615	2694	2773	2851	2930	3008	3087	3166	3244	
25	3323	3401	3480	3559	3637	3716	3794	3873	3952	4030	
26	4109	4187	4266	4345	4423	4502	4580	4659	4737	4816	
27	4895	4973	5052	5130	5209	5288	5366	5445	5523	5602	
28	5680	5759	5837	5916	5995	6073	6152	6230	6309	6387	
29	6466	6544	6623	6702	6780	6859	6937	7016	7094	7173	
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31	8037	8115	8194	8272	8351	8429	8508	8586	8665	8743	78
32	8822	8900	8979	9057	9136	9214	9293	9371	9450	9528	1 7.8
33	9607	9685	9764	9842	9921	9999	0078	0156	0235	0313	2 15.6
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35	1176	1255	1333	1412	1490	1569	1647	1725	1804	1882	4 31.2
36	1961	2039	2118	2196	2275	2353	2431	2510	2588	2667	5 39.0
37	2745	2824	2902	2981	3059	3137	3216	3294	3373	3451	6 46.8
38	3530	3608	3686	3765	3843	3922	4000	4078	4157	4235	7 54.6
39	4314	4392	4470	4549	4627	4706	4784	4862	4941	5019	8 62.4
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41	5882	5960	6038	6117	6195	6273	6352	6430	6508	6587	
42	6665	6744	6822	6900	6979	7057	7135	7214	7292	7370	
43	7449	7527	7605	7684	7762	7841	7919	7997	8076	8154	
44	8232	8311	8389	8467	8546	8624	8702	8781	8859	8937	
45	9016	9094	9172	9250	9329	9407	9485	9564	9642	9720	
46	9799	9877	9955	0034	0112	0190	0268	0347	0425	0503	
47	744 0582	0660	0738	0817	0895	0973	1051	1130	1208	1286	
48	1365	1443	1521	1599	1678	1756	1834	1912	1991	2069	
49	2147	2226	2304	2382	2460	2539	2617	2695	2773	2852	
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52	4495	4573	4651	4729	4807	4886	4964	5042	5120	5199	
53	5277	5355	5433	5511	5590	5668	5746	5824	5902	5981	
54	6059	6137	6215	6293	6372	6450	6528	6606	6684	6762	
55	6841	6919	6997	7075	7153	7232	7310	7388	7466	7544	
56	7622	7701	7779	7857	7935	8013	8091	8170	8248	8326	
57	8404	8482	8560	8638	8717	8795	8873	8951	9029	9107	
58	9185	9264	9342	9420	9498	9576	9654	9732	9810	9889	
59	9967	0045	0123	0201	0279	0357	0435	0514	0592	0670	
5560	745 0748	0826	0904	0982	1060	1138	1217	1295	1373	1451	
61	1529	1607	1685	1763	1841	1919	1998	2076	2154	2232	78
62	2310	2388	2466	2544	2622	2700	2778	2856	2934	3013	1 7.8
63	3091	3169	3247	3325	3403	3481	3559	3637	3715	3793	2 15.6
64	3871	3949	4027	4105	4183	4261	4340	4418	4496	4574	3 23.4
65	4652	4730	4808	4886	4964	5042	5120	5198	5276	5354	4 31.2
66	5432	5510	5588	5666	5744	5822	5900	5978	6056	6134	5 39.0
67	6212	6290	6368	6446	6524	6602	6680	6758	6836	6914	6 46.8
68	6992	7070	7148	7226	7304	7382	7460	7538	7616	7694	7 54.6
69	7772	7850	7928	8006	8084	8162	8240	8318	8396	8474	8 62.4
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71	9332	9410	9487	9565	9643	9721	9799	9877	9955	0033	
72	746 0111	0189	0267	0345	0423	0501	0579	0657	0735	0813	
73	0890	0968	1046	1124	1202	1280	1358	1436	1514	1592	
74	1670	1748	1825	1903	1981	2059	2137	2215	2293	2371	
75	2449	2527	2605	2682	2760	2838	2916	2994	3072	3150	
76	3228	3306	3383	3461	3539	3617	3695	3773	3851	3929	
77	4006	4084	4162	4240	4318	4396	4474	4552	4629	4707	
78	4785	4863	4941	5019	5097	5174	5252	5330	5408	5486	
79	5564	5641	5719	5797	5875	5953	6031	6108	6186	6264	
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81	7120	7198	7276	7354	7431	7509	7587	7665	7743	7821	77
82	7898	7976	8054	8132	8210	8287	8365	8443	8521	8598	1 7.7
83	8676	8754	8832	8910	8987	9065	9143	9221	9299	9376	2 15.4
84	9454	9532	9610	9687	9765	9843	9921	9998	0076	0154	3 23.1
85	747 0232	0310	0387	0465	0543	0621	0698	0776	0854	0932	4 30.8
86	1009	1087	1165	1243	1320	1398	1476	1554	1631	1709	5 38.5
87	1787	1864	1942	2020	2098	2175	2253	2331	2409	2486	6 46.2
88	2564	2642	2719	2797	2875	2953	3030	3108	3186	3263	7 53.9
89	3341	3419	3497	3574	3652	3730	3807	3885	3963	4040	8 61.6
5590	4118	4196	4273	4351	4429	4507	4584	4662	4740	4817	9 69.3
91	4895	4973	5050	5128	5206	5283	5361	5439	5516	5594	
92	5672	5749	5827	5905	5982	6060	6138	6215	6293	6371	
93	6448	6526	6603	6681	6759	6836	6914	6992	7069	7147	
94	7225	7302	7380	7458	7535	7613	7690	7768	7846	7923	
95	8001	8079	8156	8234	8311	8389	8467	8544	8622	8699	
96	8777	8855	8932	9010	9087	9165	9243	9320	9398	9475	
97	9553	9631	9708	9786	9863	9941	0019	0096	0174	0251	
98	748 0329	0407	0484	0562	0639	0717	0794	0872	0950	1027	
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02	3431	3509	3586	3664	3741	3819	3896	3974	4051	4129	
03	4206	4284	4361	4439	4516	4594	4671	4749	4826	4904	
04	4981	5059	5136	5214	5291	5369	5446	5524	5601	5679	
05	5756	5834	5911	5989	6066	6144	6221	6299	6376	6453	
06	6531	6608	6686	6763	6841	6918	6996	7073	7151	7228	
07	7306	7383	7460	7538	7615	7693	7770	7848	7925	8003	
08	8080	8157	8235	8312	8390	8467	8545	8622	8700	8777	
09	8854	8932	9009	9087	9164	9242	9319	9396	9474	9551	
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12	1177	1254	1331	1409	1486	1564	1641	1718	1796	1873	1 7.8
13	1950	2028	2105	2183	2260	2337	2415	2492	2569	2647	2 15.6
14	2724	2801	2879	2956	3034	3111	3188	3266	3343	3420	3 23.4
15	3498	3575	3652	3730	3807	3884	3962	4039	4116	4194	4 31.2
16	4271	4348	4426	4503	4580	4658	4735	4812	4890	4967	5 39.0
17	5044	5122	5199	5276	5353	5431	5508	5585	5663	5740	6 46.8
18	5817	5895	5972	6049	6127	6204	6281	6358	6436	6513	7 54.6
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21	8136	8213	8290	8368	8445	8522	8599	8677	8754	8831	
22	8908	8986	9063	9140	9217	9295	9372	9449	9526	9604	
23	9681	9758	9835	9913	9990	0067	0144	0221	0299	0376	
24	750 0453	0530	0608	0685	0762	0839	0916	0994	1071	1148	
25	1225	1302	1380	1457	1534	1611	1688	1766	1843	1920	
26	1997	2074	2152	2229	2306	2383	2460	2538	2615	2692	
27	2769	2846	2924	3001	3078	3155	3232	3309	3387	3464	
28	3541	3618	3695	3772	3850	3927	4004	4081	4158	4235	
29	4312	4390	4467	4544	4621	4698	4775	4853	4930	5007	
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31	5855	5932	6010	6087	6164	6241	6318	6395	6472	6549	77
32	6626	6704	6781	6858	6935	7012	7089	7166	7243	7320	1 7.7
33	7398	7475	7552	7629	7706	7783	7860	7937	8014	8091	2 15.4
34	8168	8246	8323	8400	8477	8554	8631	8708	8785	8862	3 23.1
35	8939	9016	9093	9170	9247	9325	9402	9479	9556	9633	4 30.8
36	9710	9787	9864	9941	0018	0095	0172	0249	0326	0403	5 38.5
37	751 0480	0557	0634	0711	0789	0866	0943	1020	1097	1174	6 46.2
38	1251	1328	1405	1482	1559	1636	1713	1790	1867	1944	7 53.9
39	2021	2098	2175	2252	2329	2406	2483	2560	2637	2714	8 61.6
5640	2791	2868	2945	3022	3099	3176	3253	3330	3407	3484	9 69.3
41	3561	3638	3715	3792	3869	3946	4023	4100	4177	4254	
42	4331	4408	4485	4562	4639	4716	4793	4870	4947	5024	
43	5101	5177	5254	5331	5408	5485	5562	5639	5716	5793	
44	5870	5947	6024	6101	6178	6255	6332	6409	6486	6563	
45	6639	6716	6793	6870	6947	7024	7101	7178	7255	7332	
46	7409	7486	7563	7639	7716	7793	7870	7947	8024	8101	
47	8178	8255	8332	8409	8485	8562	8639	8716	8793	8870	
48	8947	9024	9101	9178	9254	9331	9408	9485	9562	9639	
49	9716	9793	9870	9946	0023	0100	0177	0254	0331	0408	
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52	2022	2098	2175	2252	2329	2406	2483	2559	2636	2713	
53	2790	2867	2944	3020	3097	3174	3251	3328	3404	3481	
54	3558	3635	3712	3788	3865	3942	4019	4096	4172	4249	
55	4326	4403	4480	4556	4633	4710	4787	4864	4940	5017	
56	5094	5171	5248	5324	5401	5478	5555	5631	5708	5785	
57	5862	5939	6015	6092	6169	6246	6322	6399	6476	6553	
58	6629	6706	6783	6860	6936	7013	7090	7167	7243	7320	
59	7397	7474	7550	7627	7704	7781	7857	7934	8011	8088	
5660	8164	8241	8318	8394	8471	8548	8625	8701	8778	8855	
61	8932	9008	9085	9162	9238	9315	9392	9469	9545	9622	77
62	9699	9775	9852	9929	$\bar{0}005$	$\bar{0}082$	$\bar{0}159$	$\bar{0}236$	$\bar{0}312$	$\bar{0}389$	1 7.7
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64	1232	1309	1386	1462	1539	1616	1692	1769	1846	1922	3 23.1
65	1999	2076	2152	2229	2306	2382	2459	2536	2612	2689	4 30.8
66	2766	2842	2919	2996	3072	3149	3226	3302	3379	3455	5 38.5
67	3532	3609	3685	3762	3839	3915	3992	4069	4145	4222	6 46.2
68	4298	4375	4452	4528	4605	4682	4758	4835	4911	4988	7 53.9
69	5065	5141	5218	5294	5371	5448	5524	5601	5677	5754	8 61.6
5670	5831	5907	5984	6060	6137	6214	6290	6367	6443	6520	9 69.3
71	6596	6673	6750	6826	6903	6979	7056	7133	7209	7286	
72	7362	7439	7515	7592	7668	7745	7822	7898	7975	8051	
73	8128	8204	8281	8357	8434	8511	8587	8664	8740	8817	
74	8893	8970	9046	9123	9199	9276	9353	9429	9506	9582	
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76	754 0424	0500	0577	0653	0730	0806	0883	0959	1036	1112	
77	1189	1265	1342	1418	1495	1571	1648	1724	1801	1877	
78	1954	2030	2107	2183	2260	2336	2413	2489	2566	2642	
79	2719	2795	2872	2948	3025	3101	3178	3254	3330	3407	
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82	5012	5089	5165	5242	5318	5394	5471	5547	5624	5700	1 7.6
83	5777	5853	5929	6006	6082	6159	6235	6311	6388	6464	2 15.2
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88	9596	9672	9749	9825	9901	9978	$\bar{0}054$	$\bar{0}130$	$\bar{0}207$	$\bar{0}283$	7 53.2
89	755 0359	0436	0512	0588	0665	0741	0817	0894	0970	1046	8 60.8
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92	2649	2725	2802	2878	2954	3030	3107	3183	3259	3336	
93	3412	3488	3564	3641	3717	3793	3870	3946	4022	4098	
94	4175	4251	4327	4403	4480	4556	4632	4709	4785	4861	
95	4937	5014	5090	5166	5242	5319	5395	5471	5547	5624	
96	5700	5776	5852	5929	6005	6081	6157	6233	6310	6386	
97	6462	6538	6615	6691	6767	6843	6920	6996	7072	7148	
98	7224	7301	7377	7453	7529	7606	7682	7758	7834	7910	
99	7987	8063	8139	8215	8291	8368	8444	8520	8596	8672	
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02	756 0272	0348	0424	0501	0577	0653	0729	0805	0881	0958
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04	1795	1871	1947	2024	2100	2176	2252	2328	2404	2480
05	2556	2633	2709	2785	2861	2937	3013	3089	3165	3242
06	3318	3394	3470	3546	3622	3698	3774	3850	3927	4003
07	4079	4155	4231	4307	4383	4459	4535	4611	4687	4764
08	4840	4916	4992	5068	5144	5220	5296	5372	5448	5524
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11	7122	7198	7274	7350	7426	7502	7578	7654	7730	7806
12	7882	7958	8034	8110	8186	8262	8338	8414	8490	8566
13	8642	8718	8794	8870	8946	9022	9098	9174	9250	9326
14	9402	9478	9554	9630	9706	9782	9858	9934	0010	0086
15	757 0162	0238	0314	0390	0466	0542	0618	0694	0770	0846
16	0922	0998	1074	1150	1226	1302	1378	1454	1530	1606
17	1682	1758	1834	1910	1986	2062	2138	2214	2290	2366
18	2442	2517	2593	2669	2745	2821	2897	2973	3049	3125
19	3201	3277	3353	3429	3505	3581	3657	3733	3808	3884
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21	4719	4795	4871	4947	5023	5099	5175	5251	5327	5403
22	5479	5554	5630	5706	5782	5858	5934	6010	6086	6162
23	6237	6313	6389	6465	6541	6617	6693	6769	6845	6920
24	6996	7072	7148	7224	7300	7376	7451	7527	7603	7679
25	7755	7831	7907	7982	8058	8134	8210	8286	8362	8438
26	8513	8589	8665	8741	8817	8893	8968	9044	9120	9196
27	9272	9348	9423	9499	9575	9651	9727	9803	9878	9954
28	758 0030	0106	0182	0258	0333	0409	0485	0561	0637	0712
29	0788	0864	0940	1016	1091	1167	1243	1319	1395	1470
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31	2304	2380	2456	2531	2607	2683	2759	2835	2910	2986
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35	5334	5410	5486	5561	5637	5713	5789	5864	5940	6016
36	6091	6167	6243	6319	6394	6470	6546	6621	6697	6773
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38	7605	7681	7757	7832	7908	7984	8060	8135	8211	8287
39	8362	8438	8514	8589	8665	8741	8816	8892	8968	9043
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42	759 0632	0708	0783	0859	0934	1010	1086	1161	1237	1313
43	1388	1464	1539	1615	1691	1766	1842	1917	1993	2069
44	2144	2220	2296	2371	2447	2522	2598	2674	2749	2825
45	2900	2976	3052	3127	3203	3278	3354	3429	3505	3581
46	3656	3732	3807	3883	3959	4034	4110	4185	4261	4336
47	4412	4488	4563	4639	4714	4790	4865	4941	5016	5092
48	5168	5243	5319	5394	5470	5545	5621	5696	5772	5848
49	5923	5999	6074	6150	6225	6301	6376	6452	6527	6603
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62	5733	5808	5883	5959	6034	6109	6185	6260	6335	6411	
63	6486	6562	6637	6712	6788	6863	6938	7014	7089	7164	
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65	7993	8068	8144	8219	8294	8370	8445	8520	8596	8671	
66	8746	8822	8897	8972	9048	9123	9198	9274	9349	9424	
67	9500	9575	9650	9725	9801	9876	9951	0027	0102	0177	
68	761 0253	0328	0403	0478	0554	0629	0704	0780	0855	0930	
69	1005	1081	1156	1231	1307	1382	1457	1532	1608	1683	
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78	7775	7851	7926	8001	8076	8151	8226	8301	8377	8452	
79	8527	8602	8677	8752	8828	8903	8978	9053	9128	9203	
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81	762 0030	0105	0180	0255	0330	0405	0480	0556	0631	0706	
82	0781	0856	0931	1006	1081	1156	1232	1307	1382	1457	
83	1532	1607	1682	1757	1832	1907	1982	2058	2133	2208	
84	2283	2358	2433	2508	2583	2658	2733	2808	2883	2959	
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86	3784	3859	3934	4009	4085	4160	4235	4310	4385	4460	
87	4535	4610	4685	4760	4835	4910	4985	5060	5135	5210	
88	5285	5360	5435	5510	5585	5660	5735	5810	5885	5960	
89	6035	6111	6186	6261	6336	6411	6486	6561	6636	6711	
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91	7536	7611	7686	7761	7836	7911	7986	8061	8136	8211	
92	8286	8361	8435	8510	8585	8660	8735	8810	8885	8960	
93	9035	9110	9185	9260	9335	9410	9485	9560	9635	9710	
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95	763 0534	0609	0684	0759	0834	0909	0984	1059	1134	1209	
96	1284	1359	1434	1509	1583	1658	1733	1808	1883	1958	
97	2033	2108	2183	2258	2333	2408	2482	2557	2632	2707	
98	2782	2857	2932	3007	3082	3157	3232	3306	3381	3456	
99	3531	3606	3681	3756	3831	3906	3980	4055	4130	4205	
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02	5777	5852	5927	6002	6077	6151	6226	6301	6376	6451	
03	6526	6601	6675	6750	6825	6900	6975	7050	7124	7199	
04	7274	7349	7424	7499	7573	7648	7723	7798	7873	7947	
05	8022	8097	8172	8247	8321	8396	8471	8546	8621	8696	
06	8770	8845	8920	8995	9070	9144	9219	9294	9369	9443	
07	9518	9593	9668	9743	9817	9892	9967	0042	0117	0191	
08	764 0266	0341	0416	0490	0565	0640	0715	0789	0864	0939	
09	1014	1089	1163	1238	1313	1388	1462	1537	1612	1687	
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11	2509	2583	2658	2733	2808	2882	2957	3032	3107	3181	75
12	3256	3331	3406	3480	3555	3630	3704	3779	3854	3929	1 7.5
13	4003	4078	4153	4227	4302	4377	4451	4526	4601	4676	2 15.0
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17	6991	7065	7140	7215	7289	7364	7439	7513	7588	7663	6 45.0
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19	8484	8558	8633	8707	8782	8857	8931	9006	9081	9155	8 60.0
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22	765 0722	0797	0871	0946	1020	1095	1170	1244	1319	1393	
23	1468	1542	1617	1692	1766	1841	1915	1990	2065	2139	
24	2214	2288	2363	2437	2512	2586	2661	2736	2810	2885	
25	2959	3034	3108	3183	3258	3332	3407	3481	3556	3630	
26	3705	3779	3854	3928	4003	4078	4152	4227	4301	4376	
27	4450	4525	4599	4674	4748	4823	4897	4972	5046	5121	
28	5195	5270	5344	5419	5493	5568	5643	5717	5792	5866	
29	5941	6015	6090	6164	6239	6313	6388	6462	6537	6611	
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32	8175	8250	8324	8399	8473	8547	8622	8696	8771	8845	1 7.4
33	8920	8994	9069	9143	9218	9292	9366	9441	9515	9590	2 14.8
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35	766 0409	0483	0557	0632	0706	0781	0855	0930	1004	1078	4 29.6
36	1153	1227	1302	1376	1450	1525	1599	1674	1748	1823	5 37.0
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41	4872	4946	5021	5095	5169	5244	5318	5393	5467	5541	
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47	9331	9405	9479	9554	9628	9702	9777	9851	9925	9999	
48	767 0074	0148	0222	0296	0371	0445	0519	0593	0668	0742	
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54	4527	4601	4676	4750	4824	4898	4972	5046	5121	5195	
55	5269	5343	5417	5492	5566	5640	5714	5788	5862	5937	
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58	7494	7568	7642	7716	7790	7864	7938	8013	8087	8161	
59	8235	8309	8383	8457	8531	8606	8680	8754	8828	8902	
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65	2680	2754	2828	2902	2976	3050	3124	3198	3273	3347	4 29.6
66	3421	3495	3569	3643	3717	3791	3865	3939	4013	4087	5 37.0
67	4161	4235	4309	4383	4457	4531	4605	4679	4753	4827	6 44.4
68	4901	4975	5049	5123	5197	5271	5345	5419	5493	5567	7 51.8
69	5641	5715	5789	5863	5937	6011	6085	6159	6233	6307	8 59.2
5870	6381	6455	6529	6603	6677	6751	6825	6899	6973	7047	9 66.6
71	7121	7195	7269	7343	7417	7491	7565	7639	7713	7787	
72	7860	7934	8008	8082	8156	8230	8304	8378	8452	8526	
73	8600	8674	8748	8822	8896	8970	9044	9118	9192	9265	
74	9339	9413	9487	9561	9635	9709	9783	9857	9931	0005	
75	769 0079	0153	0227	0300	0374	0448	0522	0596	0670	0744	
76	0818	0892	0966	1040	1114	1187	1261	1335	1409	1483	
77	1557	1631	1705	1779	1852	1926	2000	2074	2148	2222	
78	2296	2370	2444	2517	2591	2665	2739	2813	2887	2961	
79	3035	3108	3182	3256	3330	3404	3478	3552	3626	3699	
5880	3773	3847	3921	3995	4069	4143	4216	4290	4364	4438	
81	4512	4586	4659	4733	4807	4881	4955	5029	5103	5176	73
82	5250	5324	5398	5472	5546	5619	5693	5767	5841	5915	1 7.3
83	5988	6062	6136	6210	6284	6358	6431	6505	6579	6653	2 14.6
84	6727	6800	6874	6948	7022	7096	7169	7243	7317	7391	3 21.9
85	7465	7538	7612	7686	7760	7834	7907	7981	8055	8129	4 29.2
86	8203	8276	8350	8424	8498	8571	8645	8719	8793	8867	5 36.5
87	8940	9014	9088	9162	9235	9309	9383	9457	9530	9604	6 43.8
88	9678	9752	9826	9899	9973	0047	0121	0194	0268	0342	7 51.1
89	770 0416	0489	0563	0637	0711	0784	0858	0932	1005	1079	8 58.4
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91	1890	1964	2038	2111	2185	2259	2333	2406	2480	2554	
92	2627	2701	2775	2849	2922	2996	3070	3143	3217	3291	
93	3364	3438	3512	3585	3659	3733	3807	3880	3954	4028	
94	4101	4175	4249	4322	4396	4470	4543	4617	4691	4764	
95	4838	4912	4985	5059	5133	5206	5280	5354	5427	5501	
96	5575	5648	5722	5796	5869	5943	6017	6090	6164	6238	
97	6311	6385	6459	6532	6606	6679	6753	6827	6900	6974	
98	7048	7121	7195	7269	7342	7416	7489	7563	7637	7710	
99	7784	7858	7931	8005	8078	8152	8226	8299	8373	8447	
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02	9992	0066	0139	0213	0286	0360	0434	0507	0581	0654	
03	771 0728	0801	0875	0949	1022	1096	1169	1243	1316	1390	
04	1463	1537	1611	1684	1758	1831	1905	1978	2052	2125	
05	2199	2273	2346	2420	2493	2567	2640	2714	2787	2861	
06	2934	3008	3081	3155	3229	3302	3376	3449	3523	3596	
07	3670	3743	3817	3890	3964	4037	4111	4184	4258	4331	
08	4405	4478	4552	4625	4699	4772	4846	4919	4993	5066	
09	5140	5213	5287	5360	5434	5507	5581	5654	5728	5801	
5910	5875	5948	6022	6095	6169	6242	6316	6389	6463	6536	
11	6610	6683	6757	6830	6903	6977	7050	7124	7197	7271	74
12	7344	7418	7491	7565	7638	7712	7785	7858	7932	8005	1 7.4
13	8079	8152	8226	8299	8373	8446	8519	8593	8666	8740	2 14.8
14	8813	8887	8960	9034	9107	9180	9254	9327	9401	9474	3 22.2
15	9547	9621	9694	9768	9841	9915	9988	0061	0135	0208	4 29.6
16	772 0282	0355	0428	0502	0575	0649	0722	0795	0869	0942	5 37.0
17	1016	1089	1162	1236	1309	1383	1456	1529	1603	1676	6 44.4
18	1750	1823	1896	1970	2043	2117	2190	2263	2337	2410	7 51.8
19	2483	2557	2630	2704	2777	2850	2924	2997	3070	3144	8 59.2
5920	3217	3290	3364	3437	3510	3584	3657	3731	3804	3877	9 66.6
21	3951	4024	4097	4171	4244	4317	4391	4464	4537	4611	
22	4684	4757	4831	4904	4977	5051	5124	5197	5271	5344	
23	5417	5491	5564	5637	5711	5784	5857	5931	6004	6077	
24	6150	6224	6297	6370	6444	6517	6590	6664	6737	6810	
25	6884	6957	7030	7103	7177	7250	7323	7397	7470	7543	
26	7616	7690	7763	7836	7910	7983	8056	8129	8203	8276	
27	8349	8423	8496	8569	8642	8716	8789	8862	8935	9009	
28	9082	9155	9228	9302	9375	9448	9521	9595	9668	9741	
29	9815	9888	9961	0034	0107	0181	0254	0327	0400	0474	
5930	773 0547	0620	0693	0767	0840	0913	0986	1060	1133	1206	
31	1279	1352	1426	1499	1572	1645	1719	1792	1865	1938	73
32	2011	2085	2158	2231	2304	2377	2451	2524	2597	2670	1 7.3
33	2743	2817	2890	2963	3036	3109	3183	3256	3329	3402	2 14.6
34	3475	3549	3622	3695	3768	3841	3915	3988	4061	4134	3 21.9
35	4207	4280	4354	4427	4500	4573	4646	4719	4793	4866	4 29.2
36	4939	5012	5085	5158	5232	5305	5378	5451	5524	5597	5 36.5
37	5670	5744	5817	5890	5963	6036	6109	6183	6256	6329	6 43.8
38	6402	6475	6548	6621	6694	6768	6841	6914	6987	7060	7 51.1
39	7133	7206	7280	7353	7426	7499	7572	7645	7718	7791	8 58.4
5940	7864	7938	8011	8084	8157	8230	8303	8376	8449	8522	9 65.7
41	8596	8669	8742	8815	8888	8961	9034	9107	9180	9253	
42	9326	9400	9473	9546	9619	9692	9765	9838	9911	9984	
43	774 0057	0130	0203	0277	0350	0423	0496	0569	0642	0715	
44	0788	0861	0934	1007	1080	1153	1226	1299	1372	1446	
45	1519	1592	1665	1738	1811	1884	1957	2030	2103	2176	
46	2249	2322	2395	2468	2541	2614	2687	2760	2833	2906	
47	2979	3052	3125	3198	3271	3345	3418	3491	3564	3637	
48	3710	3783	3856	3929	4002	4075	4148	4221	4294	4367	
49	4440	4513	4586	4659	4732	4805	4878	4951	5024	5097	
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5950	774 5170	5243	5316	5389	5462	5535	5608	5681	5754	5827	
51	5900	5972	6045	6118	6191	6264	6337	6410	6483	6556	
52	6629	6702	6775	6848	6921	6994	7067	7140	7213	7286	
53	7359	7432	7505	7578	7651	7724	7797	7869	7942	8015	
54	8088	8161	8234	8307	8380	8453	8526	8599	8672	8745	
55	8818	8891	8964	9036	9109	9182	9255	9328	9401	9474	
56	9547	9620	9693	9766	9839	9911	9984	$\bar{0}057$	$\bar{0}130$	$\bar{0}203$	
57	775 0276	0349	0422	0495	0568	0641	0713	0786	0859	0932	
58	1005	1078	1151	1224	1297	1369	1442	1515	1588	1661	
59	1734	1807	1880	1952	2025	2098	2171	2244	2317	2390	
5960	2463	2535	2608	2681	2754	2827	2900	2973	3046	3118	
61	3191	3264	3337	3410	3483	3555	3628	3701	3774	3847	73
62	3920	3993	4065	4138	4211	4284	4357	4430	4502	4575	1 7.3
63	4648	4721	4794	4867	4939	5012	5085	5158	5231	5304	2 14.6
64	5376	5449	5522	5595	5668	5740	5813	5886	5959	6032	3 21.9
65	6104	6177	6250	6323	6396	6469	6541	6614	6687	6760	4 29.2
66	6832	6905	6978	7051	7124	7196	7269	7342	7415	7488	5 36.5
67	7560	7633	7706	7779	7851	7924	7997	8070	8143	8215	6 43.8
68	8288	8361	8434	8506	8579	8652	8725	8798	8870	8943	7 51.1
69	9016	9089	9161	9234	9307	9380	9452	9525	9598	9671	8 58.4
5970	9743	9816	9889	9962	$\bar{0}034$	$\bar{0}107$	$\bar{0}180$	$\bar{0}253$	$\bar{0}325$	$\bar{0}398$	9 65.7
71	776 0471	0543	0616	0689	0762	0834	0907	0980	1053	1125	
72	1198	1271	1343	1416	1489	1562	1634	1707	1780	1852	
73	1925	1998	2071	2143	2216	2289	2361	2434	2507	2579	
74	2652	2725	2798	2870	2943	3016	3088	3161	3234	3306	
75	3379	3452	3524	3597	3670	3743	3815	3888	3961	4033	
76	4106	4179	4251	4324	4397	4469	4542	4615	4687	4760	
77	4833	4905	4978	5051	5123	5196	5269	5341	5414	5486	
78	5559	5632	5704	5777	5850	5922	5995	6068	6140	6213	
79	6286	6358	6431	6503	6576	6649	6721	6794	6867	6939	
5980	7012	7084	7157	7230	7302	7375	7448	7520	7593	7665	
81	7738	7811	7883	7956	8028	8101	8174	8246	8319	8391	72
82	8464	8537	8609	8682	8754	8827	8900	8972	9045	9117	1 7.2
83	9190	9263	9335	9408	9480	9553	9626	9698	9771	9843	2 14.4
84	9916	9988	$\bar{0}061$	$\bar{0}134$	$\bar{0}206$	$\bar{0}279$	$\bar{0}351$	$\bar{0}424$	$\bar{0}496$	$\bar{0}569$	3 21.6
85	777 0642	0714	0787	0859	0932	1004	1077	1149	1222	1295	4 28.8
86	1367	1440	1512	1585	1657	1730	1802	1875	1947	2020	5 36.0
87	2093	2165	2238	2310	2383	2455	2528	2600	2673	2745	6 43.2
88	2818	2890	2963	3035	3108	3181	3253	3326	3398	3471	7 50.4
89	3543	3616	3688	3761	3833	3906	3978	4051	4123	4196	8 57.6
5990	4268	4341	4413	4486	4558	4631	4703	4776	4848	4921	9 64.8
91	4993	5066	5138	5211	5283	5356	5428	5501	5573	5646	
92	5718	5791	5863	5935	6008	6080	6153	6225	6298	6370	
93	6443	6515	6588	6660	6733	6805	6878	6950	7022	7095	
94	7167	7240	7312	7385	7457	7530	7602	7675	7747	7819	
95	7892	7964	8037	8109	8182	8254	8327	8399	8471	8544	
96	8616	8689	8761	8834	8906	8978	9051	9123	9196	9268	
97	9340	9413	9485	9558	9630	9703	9775	9847	9920	9992	
98	778 0065	0137	0209	0282	0354	0427	0499	0571	0644	0716	
99	0789	0861	0933	1006	1078	1151	1223	1295	1368	1440	
6000	1513	1585	1657	1730	1802	1874	1947	2019	2092	2164	
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02	2960	3032	3105	3177	3249	3322	3394	3466	3539	3611	
03	3683	3756	3828	3900	3973	4045	4117	4190	4262	4335	
04	4407	4479	4552	4624	4696	4768	4841	4913	4985	5058	
05	5130	5202	5275	5347	5419	5492	5564	5636	5709	5781	
06	5853	5926	5998	6070	6143	6215	6287	6359	6432	6504	
07	6576	6649	6721	6793	6866	6938	7010	7082	7155	7227	
08	7299	7372	7444	7516	7588	7661	7733	7805	7877	7950	
09	8022	8094	8167	8239	8311	8383	8456	8528	8600	8672	
6010	8745	8817	8889	8962	9034	9106	9178	9251	9323	9395	
11	9467	9540	9612	9684	9756	9829	9901	9973	$\bar{0}045$	$\bar{0}117$	73
12	779 0190	0262	0334	0406	0479	0551	0623	0695	0768	0840	1 7.3
13	0912	0984	1056	1129	1201	1273	1345	1418	1490	1562	2 14.6
14	1634	1706	1779	1851	1923	1995	2067	2140	2212	2284	3 21.9
15	2356	2429	2501	2573	2645	2717	2790	2862	2934	3006	4 29.2
16	3078	3150	3223	3295	3367	3439	3511	3584	3656	3728	5 36.5
17	3800	3872	3944	4017	4089	4161	4233	4305	4377	4450	6 43.8
18	4522	4594	4666	4738	4810	4883	4955	5027	5099	5171	7 51.1
19	5243	5316	5388	5460	5532	5604	5676	5748	5821	5893	8 58.4
6020	5965	6037	6109	6181	6253	6326	6398	6470	6542	6614	9 65.7
21	6686	6758	6831	6903	6975	7047	7119	7191	7263	7335	
22	7408	7480	7552	7624	7696	7768	7840	7912	7984	8057	
23	8129	8201	8273	8345	8417	8489	8561	8633	8705	8778	
24	8850	8922	8994	9066	9138	9210	9282	9354	9426	9498	
25	9571	9643	9715	9787	9859	9931	$\bar{0}003$	$\bar{0}075$	$\bar{0}147$	$\bar{0}219$	
26	780 0291	0363	0435	0507	0580	0652	0724	0796	0868	0940	
27	1012	1084	1156	1228	1300	1372	1444	1516	1588	1660	
28	1732	1804	1877	1949	2021	2093	2165	2237	2309	2381	
29	2453	2525	2597	2669	2741	2813	2885	2957	3029	3101	
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31	3893	3965	4037	4109	4181	4253	4325	4397	4469	4541	72
32	4613	4685	4757	4829	4901	4973	5045	5117	5189	5261	1 7.2
33	5333	5405	5477	5549	5621	5693	5765	5837	5909	5981	2 14.4
34	6053	6125	6197	6269	6341	6413	6485	6557	6629	6701	3 21.6
35	6773	6845	6917	6989	7061	7133	7204	7276	7348	7420	4 28.8
36	7492	7564	7636	7708	7780	7852	7924	7996	8068	8140	5 36.0
37	8212	8284	8356	8428	8500	8571	8643	8715	8787	8859	6 43.2
38	8931	9003	9075	9147	9219	9291	9363	9435	9506	9578	7 50.4
39	9650	9722	9794	9866	9938	$\bar{0}010$	$\bar{0}082$	$\bar{0}154$	$\bar{0}226$	$\bar{0}297$	8 57.6
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41	1088	1160	1232	1304	1376	1448	1520	1592	1663	1735	
42	1807	1879	1951	2023	2095	2167	2238	2310	2382	2454	
43	2526	2598	2670	2742	2813	2885	2957	3029	3101	3173	
44	3245	3316	3388	3460	3532	3604	3676	3748	3819	3891	
45	3963	4035	4107	4179	4250	4322	4394	4466	4538	4610	
46	4681	4753	4825	4897	4969	5041	5112	5184	5256	5328	
47	5400	5472	5543	5615	5687	5759	5831	5902	5974	6046	
48	6118	6190	6261	6333	6405	6477	6549	6620	6692	6764	
49	6836	6908	6979	7051	7123	7195	7267	7338	7410	7482	
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52	8989	9061	9133	9204	9276	9348	9420	9491	9563	9635	
53	9707	9778	9850	9922	9994	0065	0137	0209	0281	0352	
54	782 0424	0496	0568	0639	0711	0783	0855	0926	0998	1070	
55	1141	1213	1285	1357	1428	1500	1572	1644	1715	1787	
56	1859	1930	2002	2074	2146	2217	2289	2361	2432	2504	
57	2576	2647	2719	2791	2863	2934	3006	3078	3149	3221	
58	3293	3364	3436	3508	3579	3651	3723	3794	3866	3938	
59	4010	4081	4153	4225	4296	4368	4440	4511	4583	4655	
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61	5443	5514	5586	5658	5729	5801	5873	5944	6016	6088	72
62	6159	6231	6303	6374	6446	6518	6589	6661	6732	6804	1 7.2
63	6876	6947	7019	7091	7162	7234	7305	7377	7449	7520	2 14.4
64	7592	7664	7735	7807	7878	7950	8022	8093	8165	8236	3 21.6
65	8308	8380	8451	8523	8594	8666	8738	8809	8881	8952	4 28.8
66	9024	9096	9167	9239	9310	9382	9454	9525	9597	9668	5 36.0
67	9740	9812	9883	9955	0026	0098	0169	0241	0313	0384	6 43.2
68	783 0456	0527	0599	0670	0742	0814	0885	0957	1028	1100	7 50.4
69	1171	1243	1314	1386	1458	1529	1601	1672	1744	1815	8 57.6
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71	2602	2674	2745	2817	2888	2960	3032	3103	3175	3246	
72	3318	3389	3461	3532	3604	3675	3747	3818	3890	3961	
73	4033	4104	4176	4247	4319	4390	4462	4533	4605	4676	
74	4748	4819	4891	4962	5034	5105	5177	5248	5320	5391	
75	5463	5534	5606	5677	5749	5820	5892	5963	6035	6106	
76	6178	6249	6321	6392	6464	6535	6606	6678	6749	6821	
77	6892	6964	7035	7107	7178	7250	7321	7393	7464	7536	
78	7607	7678	7750	7821	7893	7964	8036	8107	8179	8250	
79	8321	8393	8464	8536	8607	8679	8750	8821	8893	8964	
6080	9036	9107	9179	9250	9322	9393	9464	9536	9607	9679	
81	9750	9821	9893	9964	0036	0107	0179	0250	0321	0393	71
82	784 0464	0536	0607	0678	0750	0821	0893	0964	1035	1107	1 7.1
83	1178	1250	1321	1392	1464	1535	1607	1678	1749	1821	2 14.2
84	1892	1963	2035	2106	2178	2249	2320	2392	2463	2534	3 21.3
85	2606	2677	2749	2820	2891	2963	3034	3105	3177	3248	4 28.4
86	3319	3391	3462	3534	3605	3676	3748	3819	3890	3962	5 35.5
87	4033	4104	4176	4247	4318	4390	4461	4532	4604	4675	6 42.6
88	4746	4818	4889	4960	5032	5103	5174	5246	5317	5388	7 49.7
89	5460	5531	5602	5674	5745	5816	5888	5959	6030	6102	8 56.8
6090	6173	6244	6316	6387	6458	6529	6601	6672	6743	6815	9 63.9
91	6886	6957	7029	7100	7171	7242	7314	7385	7456	7528	
92	7599	7670	7742	7813	7884	7955	8027	8098	8169	8241	
93	8312	8383	8454	8526	8597	8668	8739	8811	8882	8953	
94	9024	9096	9167	9238	9310	9381	9452	9523	9595	9666	
95	9737	9808	9880	9951	0022	0093	0165	0236	0307	0378	
96	785 0450	0521	0592	0663	0735	0806	0877	0948	1019	1091	
97	1162	1233	1304	1376	1447	1518	1589	1661	1732	1803	
98	1874	1945	2017	2088	2159	2230	2301	2373	2444	2515	
99	2586	2658	2729	2800	2871	2942	3014	3085	3156	3227	
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01	4010	4081	4153	4224	4295	4366	4437	4509	4580	4651	
02	4722	4793	4864	4936	5007	5078	5149	5220	5291	5363	
03	5434	5505	5576	5647	5718	5789	5861	5932	6003	6074	
04	6145	6216	6288	6359	6430	6501	6572	6643	6714	6786	
05	6857	6928	6999	7070	7141	7212	7283	7355	7426	7497	
06	7568	7639	7710	7781	7852	7924	7995	8066	8137	8208	
07	8279	8350	8421	8493	8564	8635	8706	8777	8848	8919	
08	8990	9061	9132	9204	9275	9346	9417	9488	9559	9630	
09	9701	9772	9843	9915	9986	0057	0128	0199	0270	0341	
6110	786 0412	0483	0554	0625	0696	0767	0839	0910	0981	1052	
11	1123	1194	1265	1336	1407	1478	1549	1620	1691	1762	72
12	1833	1905	1976	2047	2118	2189	2260	2331	2402	2473	1 7.2
13	2544	2615	2686	2757	2828	2899	2970	3041	3112	3183	2 14.4
14	3254	3325	3396	3467	3538	3609	3681	3752	3823	3894	3 21.6
15	3965	4036	4107	4178	4249	4320	4391	4462	4533	4604	4 28.8
16	4675	4746	4817	4888	4959	5030	5101	5172	5243	5314	5 36.0
17	5385	5456	5527	5598	5669	5740	5811	5882	5953	6024	6 43.2
18	6095	6166	6237	6308	6379	6450	6521	6592	6663	6734	7 50.4
19	6805	6876	6946	7017	7088	7159	7230	7301	7372	7443	8 57.6
6120	7514	7585	7656	7727	7798	7869	7940	8011	8082	8153	9 64.8
21	8224	8295	8366	8437	8508	8579	8649	8720	8791	8862	
22	8933	9004	9075	9146	9217	9288	9359	9430	9501	9572	
23	9643	9714	9784	9855	9926	9997	0068	0139	0210	0281	
24	787 0352	0423	0494	0565	0635	0706	0777	0848	0919	0990	
25	1061	1132	1203	1274	1345	1415	1486	1557	1628	1699	
26	1770	1841	1912	1983	2053	2124	2195	2266	2337	2408	
27	2479	2550	2621	2691	2762	2833	2904	2975	3046	3117	
28	3188	3258	3329	3400	3471	3542	3613	3684	3754	3825	
29	3896	3967	4038	4109	4180	4250	4321	4392	4463	4534	
6130	4605	4676	4746	4817	4888	4959	5030	5101	5171	5242	
31	5313	5384	5455	5526	5596	5667	5738	5809	5880	5951	71
32	6021	6092	6163	6234	6305	6376	6446	6517	6588	6659	1 7.1
33	6730	6800	6871	6942	7013	7084	7155	7225	7296	7367	2 14.2
34	7438	7509	7579	7650	7721	7792	7863	7933	8004	8075	3 21.3
35	8146	8216	8287	8358	8429	8500	8570	8641	8712	8783	4 28.4
36	8854	8924	8995	9066	9137	9207	9278	9349	9420	9490	5 35.5
37	9561	9632	9703	9774	9844	9915	9986	0057	0127	0198	6 42.6
38	788 0269	0340	0410	0481	0552	0623	0693	0764	0835	0906	7 49.7
39	0976	1047	1118	1189	1259	1330	1401	1472	1542	1613	8 56.8
6140	1684	1754	1825	1896	1967	2037	2108	2179	2250	2320	9 63.9
41	2391	2462	2532	2603	2674	2745	2815	2886	2957	3027	
42	3098	3169	3240	3310	3381	3452	3522	3593	3664	3734	
43	3805	3876	3947	4017	4088	4159	4229	4300	4371	4441	
44	4512	4583	4653	4724	4795	4865	4936	5007	5078	5148	
45	5219	5290	5360	5431	5502	5572	5643	5714	5784	5855	
46	5926	5996	6067	6138	6208	6279	6350	6420	6491	6561	
47	6632	6703	6773	6844	6915	6985	7056	7127	7197	7268	
48	7339	7409	7480	7551	7621	7692	7762	7833	7904	7974	
49	8045	8116	8186	8257	8327	8398	8469	8539	8610	8681	
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51	9457	9528	9598	9669	9740	9810	9881	9951	0022	0093	
52	789 0163	0234	0304	0375	0446	0516	0587	0657	0728	0799	
53	0869	0940	1010	1081	1151	1222	1293	1363	1434	1504	
54	1575	1645	1716	1787	1857	1928	1998	2069	2139	2210	
55	2281	2351	2422	2492	2563	2633	2704	2774	2845	2916	
56	2986	3057	3127	3198	3268	3339	3409	3480	3550	3621	
57	3692	3762	3833	3903	3974	4044	4115	4185	4256	4326	
58	4397	4467	4538	4608	4679	4749	4820	4890	4961	5032	
59	5102	5173	5243	5314	5384	5455	5525	5596	5666	5737	
6160	5807	5878	5948	6019	6089	6160	6230	6301	6371	6442	
61	6512	6583	6653	6724	6794	6865	6935	7005	7076	7146	71
62	7217	7287	7358	7428	7499	7569	7640	7710	7781	7851	1 7.1
63	7922	7992	8063	8133	8204	8274	8344	8415	8485	8556	2 14.2
64	8626	8697	8767	8838	8908	8979	9049	9119	9190	9260	3 21.3
65	9331	9401	9472	9542	9613	9683	9753	9824	9894	9965	4 28.4
66	790 0035	0106	0176	0247	0317	0387	0458	0528	0599	0669	5 35.5
67	0739	0810	0880	0951	1021	1092	1162	1232	1303	1373	6 42.6
68	1444	1514	1584	1655	1725	1796	1866	1936	2007	2077	7 49.7
69	2148	2218	2288	2359	2429	2500	2570	2640	2711	2781	8 56.8
6170	2852	2922	2992	3063	3133	3204	3274	3344	3415	3485	9 63.9
71	3555	3626	3696	3767	3837	3907	3978	4048	4118	4189	
72	4259	4330	4400	4470	4541	4611	4681	4752	4822	4892	
73	4963	5033	5103	5174	5244	5315	5385	5455	5526	5596	
74	5666	5737	5807	5877	5948	6018	6088	6159	6229	6299	
75	6370	6440	6510	6581	6651	6721	6792	6862	6932	7003	
76	7073	7143	7214	7284	7354	7424	7495	7565	7635	7706	
77	7776	7846	7917	7987	8057	8128	8198	8268	8338	8409	
78	8479	8549	8620	8690	8760	8831	8901	8971	9041	9112	
79	9182	9252	9323	9393	9463	9533	9604	9674	9744	9814	
6180	9885	9955	0025	0096	0166	0236	0306	0377	0447	0517	
81	791 0587	0658	0728	0798	0868	0939	1009	1079	1150	1220	70
82	1290	1360	1431	1501	1571	1641	1711	1782	1852	1922	1 7.0
83	1992	2063	2133	2203	2273	2344	2414	2484	2554	2625	2 14.0
84	2695	2765	2835	2905	2976	3046	3116	3186	3257	3327	3 21.0
85	3397	3467	3537	3608	3678	3748	3818	3889	3959	4029	4 28.0
86	4099	4169	4240	4310	4380	4450	4520	4591	4661	4731	5 35.0
87	4801	4871	4942	5012	5082	5152	5222	5292	5363	5433	6 42.0
88	5503	5573	5643	5714	5784	5854	5924	5994	6064	6135	7 49.0
89	6205	6275	6345	6415	6486	6556	6626	6696	6766	6836	8 56.0
6190	6906	6977	7047	7117	7187	7257	7327	7398	7468	7538	9 63.0
91	7608	7678	7748	7818	7889	7959	8029	8099	8169	8239	
92	8309	8380	8450	8520	8590	8660	8730	8800	8871	8941	
93	9011	9081	9151	9221	9291	9361	9432	9502	9572	9642	
94	9712	9782	9852	9922	9992	0063	0133	0203	0273	0343	
95	792 0413	0483	0553	0623	0694	0764	0834	0904	0974	1044	
96	1114	1184	1254	1324	1394	1465	1535	1605	1675	1745	
97	1815	1885	1955	2025	2095	2165	2235	2306	2376	2446	
98	2516	2586	2656	2726	2796	2866	2936	3006	3076	3146	
99	3216	3286	3356	3427	3497	3567	3637	3707	3777	3847	
6200	3917	3987	4057	4127	4197	4267	4337	4407	4477	4547	
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6200	792 3917	3987	4057	4127	4197	4267	4337	4407	4477	4547	
01	4617	4687	4757	4827	4897	4967	5038	5108	5178	5248	
02	5318	5388	5458	5528	5598	5668	5738	5808	5878	5948	
03	6018	6088	6158	6228	6298	6368	6438	6508	6578	6648	
04	6718	6788	6858	6928	6998	7068	7138	7208	7278	7348	
05	7418	7488	7558	7628	7698	7768	7838	7908	7978	8048	
06	8118	8188	8258	8328	8398	8468	8538	8608	8678	8747	
07	8817	8887	8957	9027	9097	9167	9237	9307	9377	9447	
08	9517	9587	9657	9727	9797	9867	9937	$\bar{0}007$	$\bar{0}077$	$\bar{0}147$	
09	793 0217	0287	0356	0426	0496	0566	0636	0706	0776	0846	
6210	0916	0986	1056	1126	1196	1266	1336	1406	1475	1545	
11	1615	1685	1755	1825	1895	1965	2035	2105	2175	2245	71
12	2314	2384	2454	2524	2594	2664	2734	2804	2874	2944	1 7.1
13	3014	3083	3153	3223	3293	3363	3433	3503	3573	3643	2 14.2
14	3712	3782	3852	3922	3992	4062	4132	4202	4272	4341	3 21.3
15	4411	4481	4551	4621	4691	4761	4831	4900	4970	5040	4 28.4
16	5110	5180	5250	5320	5390	5459	5529	5599	5669	5739	5 35.5
17	5809	5879	5948	6018	6088	6158	6228	6298	6367	6437	6 42.6
18	6507	6577	6647	6717	6787	6856	6926	6996	7066	7136	7 49.7
19	7206	7275	7345	7415	7485	7555	7625	7694	7764	7834	8 56.8
6220	7904	7974	8043	8113	8183	8253	8323	8393	8462	8532	9 63.9
21	8602	8672	8742	8811	8881	8951	9021	9091	9160	9230	
22	9300	9370	9440	9509	9579	9649	9719	9789	9858	9928	
23	9998	$\bar{0}068$	$\bar{0}138$	$\bar{0}207$	$\bar{0}277$	$\bar{0}347$	$\bar{0}417$	$\bar{0}487$	$\bar{0}556$	$\bar{0}626$	
24	794 0696	0766	0835	0905	0975	1045	1114	1184	1254	1324	
25	1394	1463	1533	1603	1673	1742	1812	1882	1952	2021	
26	2091	2161	2231	2300	2370	2440	2510	2579	2649	2719	
27	2789	2858	2928	2998	3068	3137	3207	3277	3347	3416	
28	3486	3556	3626	3695	3765	3835	3904	3974	4044	4114	
29	4183	4253	4323	4392	4462	4532	4602	4671	4741	4811	
6230	4880	4950	5020	5090	5159	5229	5299	5368	5438	5508	
31	5578	5647	5717	5787	5856	5926	5996	6065	6135	6205	70
32	6274	6344	6414	6484	6553	6623	6693	6762	6832	6902	1 7.0
33	6971	7041	7111	7180	7250	7320	7389	7459	7529	7598	2 14.0
34	7668	7738	7807	7877	7947	8016	8086	8156	8225	8295	3 21.0
35	8365	8434	8504	8574	8643	8713	8782	8852	8922	8991	4 28.0
36	9061	9131	9200	9270	9340	9409	9479	9549	9618	9688	5 35.0
37	9757	9827	9897	9966	$\bar{0}036$	$\bar{0}106$	$\bar{0}175$	$\bar{0}245$	$\bar{0}314$	$\bar{0}384$	6 42.0
38	795 0454	0523	0593	0663	0732	0802	0871	0941	1011	1080	7 49.0
39	1150	1219	1289	1359	1428	1498	1567	1637	1707	1776	8 56.0
6240	1846	1915	1985	2055	2124	2194	2263	2333	2403	2472	9 63.0
41	2542	2611	2681	2751	2820	2890	2959	3029	3098	3168	
42	3238	3307	3377	3446	3516	3586	3655	3725	3794	3864	
43	3933	4003	4072	4142	4212	4281	4351	4420	4490	4559	
44	4629	4698	4768	4838	4907	4977	5046	5116	5185	5255	
45	5324	5394	5464	5533	5603	5672	5742	5811	5881	5950	
46	6020	6089	6159	6228	6298	6367	6437	6506	6576	6646	
47	6715	6785	6854	6924	6993	7063	7132	7202	7271	7341	
48	7410	7480	7549	7619	7688	7758	7827	7897	7966	8036	
49	8105	8175	8244	8314	8383	8453	8522	8592	8661	8731	
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51	9495	9564	9634	9703	9773	9842	9912	9981	$\bar{0}051$	$\bar{0}120$	
52	796 0190	0259	0329	0398	0468	0537	0606	0676	0745	0815	
53	0884	0954	1023	1093	1162	1232	1301	1370	1440	1509	
54	1579	1648	1718	1787	1857	1926	1995	2065	2134	2204	
55	2273	2343	2412	2481	2551	2620	2690	2759	2829	2898	
56	2967	3037	3106	3176	3245	3314	3384	3453	3523	3592	
57	3662	3731	3800	3870	3939	4009	4078	4147	4217	4286	70
58	4356	4425	4494	4564	4633	4703	4772	4841	4911	4980	1 7.0
59	5050	5119	5188	5258	5327	5396	5466	5535	5605	5674	2 14.0
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62	7131	7200	7269	7339	7408	7477	7547	7616	7685	7755	5 35.0
63	7824	7893	7963	8032	8101	8171	8240	8309	8379	8448	6 42.0
64	8517	8587	8656	8725	8795	8864	8933	9003	9072	9141	7 49.0
65	9211	9280	9349	9419	9488	9557	9627	9696	9765	9835	8 56.0
66	9904	9973	$\bar{0}043$	$\bar{0}112$	$\bar{0}181$	$\bar{0}250$	$\bar{0}320$	$\bar{0}389$	$\bar{0}458$	$\bar{0}528$	9 63.0
67	797 0597	0666	0736	0805	0874	0943	1013	1082	1151	1221	
68	1290	1359	1428	1498	1567	1636	1706	1775	1844	1913	
69	1983	2052	2121	2191	2260	2329	2398	2468	2537	2606	
6270	2675	2745	2814	2883	2952	3022	3091	3160	3229	3299	
71	3368	3437	3507	3576	3645	3714	3784	3853	3922	3991	69
72	4060	4130	4199	4268	4337	4407	4476	4545	4614	4684	1 6.9
73	4753	4822	4891	4961	5030	5099	5168	5237	5307	5376	2 13.8
74	5445	5514	5584	5653	5722	5791	5860	5930	5999	6068	3 20.7
75	6137	6207	6276	6345	6414	6483	6553	6622	6691	6760	4 27.6
76	6829	6899	6968	7037	7106	7175	7245	7314	7383	7452	5 34.5
77	7521	7590	7660	7729	7798	7867	7936	8006	8075	8144	6 41.4
78	8213	8282	8351	8421	8490	8559	8628	8697	8766	8836	7 48.3
79	8905	8974	9043	9112	9181	9251	9320	9389	9458	9527	8 55.2
6280	9596	9666	9735	9804	9873	9942	$\bar{0}011$	$\bar{0}080$	$\bar{0}150$	$\bar{0}219$	9 62.1
81	798 0288	0357	0426	0495	0565	0634	0703	0772	0841	0910	
82	0979	1048	1118	1187	1256	1325	1394	1463	1532	1601	
83	1671	1740	1809	1878	1947	2016	2085	2154	2224	2293	
84	2362	2431	2500	2569	2638	2707	2776	2846	2915	2984	
85	3053	3122	3191	3260	3329	3398	3467	3536	3606	3675	
86	3744	3813	3882	3951	4020	4089	4158	4227	4296	4366	
87	4435	4504	4573	4642	4711	4780	4849	4918	4987	5056	68
88	5125	5194	5263	5333	5402	5471	5540	5609	5678	5747	1 6.8
89	5816	5885	5954	6023	6092	6161	6230	6299	6368	6437	2 13.6
6290	6506	6575	6645	6714	6783	6852	6921	6990	7059	7128	3 20.4
91	7197	7266	7335	7404	7473	7542	7611	7680	7749	7818	4 27.2
92	7887	7956	8025	8094	8163	8232	8301	8370	8439	8508	5 34.0
93	8577	8646	8715	8784	8853	8922	8991	9060	9129	9198	6 40.8
94	9267	9336	9405	9474	9543	9612	9681	9750	9819	9888	7 47.6
95	9957	$\bar{0}026$	$\bar{0}095$	$\bar{0}164$	$\bar{0}233$	$\bar{0}302$	$\bar{0}371$	$\bar{0}440$	$\bar{0}509$	$\bar{0}578$	8 54.4
96	799 0647	0716	0785	0854	0923	0992	1061	1130	1199	1268	9 61.2
97	1337	1406	1475	1544	1613	1682	1751	1820	1889	1958	
98	2027	2096	2164	2233	2302	2371	2440	2509	2578	2647	
99	2716	2785	2854	2923	2992	3061	3130	3199	3268	3337	
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6300	799 3405	3474	3543	3612	3681	3750	3819	3888	3957	4026	
01	4095	4164	4233	4302	4370	4439	4508	4577	4646	4715	
02	4784	4853	4922	4991	5060	5129	5197	5266	5335	5404	
03	5473	5542	5611	5680	5749	5818	5886	5955	6024	6093	
04	6162	6231	6300	6369	6438	6506	6575	6644	6713	6782	
05	6851	6920	6989	7058	7126	7195	7264	7333	7402	7471	
06	7540	7609	7677	7746	7815	7884	7953	8022	8091	8159	
07	8228	8297	8366	8435	8504	8573	8641	8710	8779	8848	
08	8917	8986	9055	9123	9192	9261	9330	9399	9468	9536	
09	9605	9674	9743	9812	9881	9949	0018	0087	0156	0225	
6310	800 0294	0362	0431	0500	0569	0638	0707	0775	0844	0913	
11	0982	1051	1119	1188	1257	1326	1395	1463	1532	1601	69
12	1670	1739	1808	1876	1945	2014	2083	2152	2220	2289	1 6.9
13	2358	2427	2495	2564	2633	2702	2771	2839	2908	2977	2 13.8
14	3046	3115	3183	3252	3321	3390	3458	3527	3596	3665	3 20.7
15	3734	3802	3871	3940	4009	4077	4146	4215	4284	4352	4 27.6
16	4421	4490	4559	4627	4696	4765	4834	4903	4971	5040	5 34.5
17	5109	5178	5246	5315	5384	5453	5521	5590	5659	5727	6 41.4
18	5796	5865	5934	6002	6071	6140	6209	6277	6346	6415	7 48.3
19	6484	6552	6621	6690	6758	6827	6896	6965	7033	7102	8 55.2
6320	7171	7239	7308	7377	7446	7514	7583	7652	7720	7789	9 62.1
21	7858	7927	7995	8064	8133	8201	8270	8339	8408	8476	
22	8545	8614	8682	8751	8820	8888	8957	9026	9094	9163	
23	9232	9301	9369	9438	9507	9575	9644	9713	9781	9850	
24	9919	9987	0056	0125	0193	0262	0331	0399	0468	0537	
25	801 0605	0674	0743	0811	0880	0949	1017	1086	1155	1223	
26	1292	1361	1429	1498	1566	1635	1704	1772	1841	1910	
27	1978	2047	2116	2184	2253	2322	2390	2459	2527	2596	
28	2665	2733	2802	2871	2939	3008	3076	3145	3214	3282	
29	3351	3420	3488	3557	3625	3694	3763	3831	3900	3968	
6330	4037	4106	4174	4243	4312	4380	4449	4517	4586	4655	
31	4723	4792	4860	4929	4998	5066	5135	5203	5272	5340	68
32	5409	5478	5546	5615	5683	5752	5821	5889	5958	6026	1 6.8
33	6095	6163	6232	6301	6369	6438	6506	6575	6643	6712	2 13.6
34	6781	6849	6918	6986	7055	7123	7192	7261	7329	7398	3 20.4
35	7466	7535	7603	7672	7740	7809	7878	7946	8015	8083	4 27.2
36	8152	8220	8289	8357	8426	8494	8563	8631	8700	8769	5 34.0
37	8837	8906	8974	9043	9111	9180	9248	9317	9385	9454	6 40.8
38	9522	9591	9659	9728	9796	9865	9933	0002	0070	0139	7 47.6
39	802 0208	0276	0345	0413	0482	0550	0619	0687	0756	0824	8 54.4
6340	0893	0961	1030	1098	1167	1235	1304	1372	1441	1509	9 61.2
41	1578	1646	1715	1783	1851	1920	1988	2057	2125	2194	
42	2262	2331	2399	2468	2536	2605	2673	2742	2810	2879	
43	2947	3016	3084	3153	3221	3289	3358	3426	3495	3563	
44	3632	3700	3769	3837	3906	3974	4042	4111	4179	4248	
45	4316	4385	4453	4522	4590	4658	4727	4795	4864	4932	
46	5001	5069	5138	5206	5274	5343	5411	5480	5548	5617	
47	5685	5753	5822	5890	5959	6027	6096	6164	6232	6301	
48	6369	6438	6506	6574	6643	6711	6780	6848	6916	6985	
49	7053	7122	7190	7258	7327	7395	7464	7532	7600	7669	
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52	9105	9173	9242	9310	9378	9447	9515	9583	9652	9720	
53	9789	9857	9925	9994	0062	0130	0199	0267	0335	0404	
54	803 0472	0540	0609	0677	0745	0814	0882	0951	1019	1087	
55	1156	1224	1292	1361	1429	1497	1566	1634	1702	1771	
56	1839	1907	1976	2044	2112	2181	2249	2317	2385	2454	
57	2522	2590	2659	2727	2795	2864	2932	3000	3069	3137	
58	3205	3274	3342	3410	3478	3547	3615	3683	3752	3820	
59	3888	3957	4025	4093	4161	4230	4298	4366	4435	4503	
6360	4571	4639	4708	4776	4844	4913	4981	5049	5117	5186	
61	5254	5322	5391	5459	5527	5595	5664	5732	5800	5868	68
62	5937	6005	6073	6141	6210	6278	6346	6414	6483	6551	1 6.8
63	6619	6687	6756	6824	6892	6960	7029	7097	7165	7233	2 13.6
64	7302	7370	7438	7506	7575	7643	7711	7779	7848	7916	3 20.4
65	7984	8052	8121	8189	8257	8325	8393	8462	8530	8598	4 27.2
66	8666	8735	8803	8871	8939	9007	9076	9144	9212	9280	5 34.0
67	9348	9417	9485	9553	9621	9690	9758	9826	9894	9962	6 40.8
68	804 0031	0099	0167	0235	0303	0372	0440	0508	0576	0644	7 47.6
69	0712	0781	0849	0917	0985	1053	1122	1190	1258	1326	8 54.4
6370	1394	1463	1531	1599	1667	1735	1803	1872	1940	2008	9 61.2
71	2076	2144	2212	2281	2349	2417	2485	2553	2621	2690	
72	2758	2826	2894	2962	3030	3098	3167	3235	3303	3371	
73	3439	3507	3575	3644	3712	3780	3848	3916	3984	4052	
74	4121	4189	4257	4325	4393	4461	4529	4598	4666	4734	
75	4802	4870	4938	5006	5074	5143	5211	5279	5347	5415	
76	5483	5551	5619	5687	5756	5824	5892	5960	6028	6096	
77	6164	6232	6300	6368	6437	6505	6573	6641	6709	6777	
78	6845	6913	6981	7049	7118	7186	7254	7322	7390	7458	
79	7526	7594	7662	7730	7798	7866	7934	8003	8071	8139	
6380	8207	8275	8343	8411	8479	8547	8615	8683	8751	8819	
81	8887	8956	9024	9092	9160	9228	9296	9364	9432	9500	67
82	9568	9636	9704	9772	9840	9908	9976	0044	0112	0180	1 6.7
83	805 0248	0316	0385	0453	0521	0589	0657	0725	0793	0861	2 13.4
84	0929	0997	1065	1133	1201	1269	1337	1405	1473	1541	3 20.1
85	1609	1677	1745	1813	1881	1949	2017	2085	2153	2221	4 26.8
86	2289	2357	2425	2493	2561	2629	2697	2765	2833	2901	5 33.5
87	2969	3037	3105	3173	3241	3309	3377	3445	3513	3581	6 40.2
88	3649	3717	3785	3853	3921	3989	4057	4125	4193	4261	7 46.9
89	4329	4397	4465	4533	4601	4669	4737	4805	4873	4941	8 53.6
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91	5688	5756	5824	5892	5960	6028	6096	6164	6232	6300	
92	6368	6436	6504	6571	6639	6707	6775	6843	6911	6979	
93	7047	7115	7183	7251	7319	7387	7455	7523	7590	7658	
94	7726	7794	7862	7930	7998	8066	8134	8202	8270	8338	
95	8405	8473	8541	8609	8677	8745	8813	8881	8949	9017	
96	9085	9152	9220	9288	9356	9424	9492	9560	9628	9696	
97	9764	9831	9899	9967	0035	0103	0171	0239	0307	0374	
98	806 0442	0510	0578	0646	0714	0782	0850	0917	0985	1053	
99	1121	1189	1257	1325	1393	1460	1528	1596	1664	1732	
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02	3157	3225	3292	3360	3428	3496	3564	3632	3699	3767	
03	3835	3903	3971	4038	4106	4174	4242	4310	4378	4445	
04	4513	4581	4649	4717	4784	4852	4920	4988	5056	5124	
05	5191	5259	5327	5395	5463	5530	5598	5666	5734	5802	
06	5869	5937	6005	6073	6141	6208	6276	6344	6412	6479	
07	6547	6615	6683	6751	6818	6886	6954	7022	7089	7157	
08	7225	7293	7361	7428	7496	7564	7632	7699	7767	7835	
09	7903	7970	8038	8106	8174	8242	8309	8377	8445	8513	
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11	9258	9326	9393	9461	9529	9596	9664	9732	9800	9867	68
12	9935	0003	0071	0138	0206	0274	0342	0409	0477	0545	1 6.8
13	807 0612	0680	0748	0816	0883	0951	1019	1086	1154	1222	2 13.6
14	1290	1357	1425	1493	1560	1628	1696	1764	1831	1899	3 20.4
15	1967	2034	2102	2170	2237	2305	2373	2440	2508	2576	4 27.2
16	2644	2711	2779	2847	2914	2982	3050	3117	3185	3253	5 34.0
17	3320	3388	3456	3523	3591	3659	3726	3794	3862	3929	6 40.8
18	3997	4065	4132	4200	4268	4335	4403	4471	4538	4606	7 47.6
19	4674	4741	4809	4877	4944	5012	5080	5147	5215	5283	8 54.4
6420	5350	5418	5486	5553	5621	5689	5756	5824	5891	5959	9 61.2
21	6027	6094	6162	6230	6297	6365	6432	6500	6568	6635	
22	6703	6771	6838	6906	6974	7041	7109	7176	7244	7312	
23	7379	7447	7514	7582	7650	7717	7785	7853	7920	7988	
24	8055	8123	8191	8258	8326	8393	8461	8529	8596	8664	
25	8731	8799	8867	8934	9002	9069	9137	9204	9272	9340	
26	9407	9475	9542	9610	9678	9745	9813	9880	9948	0015	
27	808 0083	0151	0218	0286	0353	0421	0488	0556	0624	0691	
28	0759	0826	0894	0961	1029	1096	1164	1232	1299	1367	
29	1434	1502	1569	1637	1704	1772	1840	1907	1975	2042	
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31	2785	2853	2920	2988	3055	3123	3190	3258	3325	3393	67
32	3460	3528	3595	3663	3730	3798	3865	3933	4000	4068	1 6.7
33	4136	4203	4271	4338	4406	4473	4541	4608	4676	4743	2 13.4
34	4811	4878	4946	5013	5081	5148	5216	5283	5351	5418	3 20.1
35	5486	5553	5620	5688	5755	5823	5890	5958	6025	6093	4 26.8
36	6160	6228	6295	6363	6430	6498	6565	6633	6700	6768	5 33.5
37	6835	6903	6970	7037	7105	7172	7240	7307	7375	7442	6 40.2
38	7510	7577	7645	7712	7780	7847	7914	7982	8049	8117	7 46.9
39	8184	8252	8319	8387	8454	8521	8589	8656	8724	8791	8 53.6
6440	8859	8926	8994	9061	9128	9196	9263	9331	9398	9466	9 60.3
41	9533	9600	9668	9735	9803	9870	9938	0005	0072	0140	
42	809 0207	0275	0342	0409	0477	0544	0612	0679	0747	0814	
43	0881	0949	1016	1084	1151	1218	1286	1353	1421	1488	
44	1555	1623	1690	1757	1825	1892	1960	2027	2094	2162	
45	2229	2297	2364	2431	2499	2566	2634	2701	2768	2836	
46	2903	2970	3038	3105	3173	3240	3307	3375	3442	3509	
47	3577	3644	3711	3779	3846	3914	3981	4048	4116	4183	
48	4250	4318	4385	4452	4520	4587	4654	4722	4789	4856	
49	4924	4991	5058	5126	5193	5260	5328	5395	5462	5530	
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52	6944	7011	7078	7146	7213	7280	7347	7415	7482	7549	
53	7617	7684	7751	7819	7886	7953	8020	8088	8155	8222	
54	8290	8357	8424	8491	8559	8626	8693	8761	8828	8895	
55	8962	9030	9097	9164	9232	9299	9366	9433	9501	9568	
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57	810 0308	0375	0442	0510	0577	0644	0711	0779	0846	0913	
58	0980	1048	1115	1182	1249	1317	1384	1451	1518	1586	
59	1653	1720	1787	1855	1922	1989	2056	2123	2191	2258	
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61	2997	3065	3132	3199	3266	3333	3401	3468	3535	3602	67
62	3670	3737	3804	3871	3938	4006	4073	4140	4207	4274	1 6.7
63	4342	4409	4476	4543	4610	4678	4745	4812	4879	4946	2 13.4
64	5013	5081	5148	5215	5282	5349	5417	5484	5551	5618	3 20.1
65	5685	5752	5820	5887	5954	6021	6088	6156	6223	6290	4 26.8
66	6357	6424	6491	6558	6626	6693	6760	6827	6894	6961	5 33.5
67	7029	7096	7163	7230	7297	7364	7432	7499	7566	7633	6 40.2
68	7700	7767	7834	7902	7969	8036	8103	8170	8237	8304	7 46.9
69	8372	8439	8506	8573	8640	8707	8774	8841	8909	8976	8 53.6
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71	9714	9781	9848	9915	9982	$\bar{0}050$	$\bar{0}117$	$\bar{0}184$	$\bar{0}251$	$\bar{0}318$	
72	811 0385	0452	0519	0586	0653	0721	0788	0855	0922	0989	
73	1056	1123	1190	1257	1324	1392	1459	1526	1593	1660	
74	1727	1794	1861	1928	1995	2062	2129	2197	2264	2331	
75	2398	2465	2532	2599	2666	2733	2800	2867	2934	3001	
76	3068	3135	3203	3270	3337	3404	3471	3538	3605	3672	
77	3739	3806	3873	3940	4007	4074	4141	4208	4275	4342	
78	4409	4476	4544	4611	4678	4745	4812	4879	4946	5013	
79	5080	5147	5214	5281	5348	5415	5482	5549	5616	5683	
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81	6420	6487	6554	6621	6688	6755	6822	6889	6956	7023	66
82	7090	7157	7224	7291	7358	7425	7492	7559	7626	7693	1 6.6
83	7760	7827	7894	7961	8028	8095	8162	8229	8296	8363	2 13.2
84	8430	8497	8564	8631	8698	8765	8832	8899	8966	9033	3 19.8
85	9100	9167	9234	9301	9368	9435	9502	9569	9636	9702	4 26.4
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87	812 0439	0506	0573	0640	0707	0774	0841	0908	0975	1041	6 39.6
88	1108	1175	1242	1309	1376	1443	1510	1577	1644	1711	7 46.2
89	1778	1845	1912	1979	2045	2112	2179	2246	2313	2380	8 52.8
6490	2447	2514	2581	2648	2715	2782	2848	2915	2982	3049	9 59.4
91	3116	3183	3250	3317	3384	3451	3518	3584	3651	3718	
92	3785	3852	3919	3986	4053	4120	4186	4253	4320	4387	
93	4454	4521	4588	4655	4722	4788	4855	4922	4989	5056	
94	5123	5190	5257	5323	5390	5457	5524	5591	5658	5725	
95	5792	5858	5925	5992	6059	6126	6193	6260	6326	6393	
96	6460	6527	6594	6661	6728	6794	6861	6928	6995	7062	
97	7129	7196	7262	7329	7396	7463	7530	7597	7663	7730	
98	7797	7864	7931	7998	8064	8131	8198	8265	8332	8399	
99	8465	8532	8599	8666	8733	8799	8866	8933	9000	9067	
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02	813 0470	0536	0603	0670	0737	0804	0870	0937	1004	1071	
03	1138	1204	1271	1338	1405	1471	1538	1605	1672	1739	
04	1805	1872	1939	2006	2072	2139	2206	2273	2339	2406	
05	2473	2540	2607	2673	2740	2807	2874	2940	3007	3074	
06	3141	3207	3274	3341	3408	3474	3541	3608	3675	3741	
07	3808	3875	3942	4008	4075	4142	4209	4275	4342	4409	
08	4475	4542	4609	4676	4742	4809	4876	4943	5009	5076	
09	5143	5209	5276	5343	5410	5476	5543	5610	5676	5743	
6510	5810	5877	5943	6010	6077	6143	6210	6277	6344	6410	
11	6477	6544	6610	6677	6744	6810	6877	6944	7011	7077	67
12	7144	7211	7277	7344	7411	7477	7544	7611	7677	7744	1 6.7
13	7811	7877	7944	8011	8077	8144	8211	8278	8344	8411	2 13.4
14	8478	8544	8611	8678	8744	8811	8878	8944	9011	9078	3 20.1
15	9144	9211	9278	9344	9411	9477	9544	9611	9677	9744	4 26.8
16	9811	9877	9944	0011	0077	0144	0211	0277	0344	0411	5 33.5
17	814 0477	0544	0610	0677	0744	0810	0877	0944	1010	1077	6 40.2
18	1144	1210	1277	1343	1410	1477	1543	1610	1677	1743	7 46.9
19	1810	1876	1943	2010	2076	2143	2210	2276	2343	2409	8 53.6
6520	2476	2543	2609	2676	2742	2809	2876	2942	3009	3075	9 60.3
21	3142	3209	3275	3342	3408	3475	3542	3608	3675	3741	
22	3808	3875	3941	4008	4074	4141	4207	4274	4341	4407	
23	4474	4540	4607	4674	4740	4807	4873	4940	5006	5073	
24	5140	5206	5273	5339	5406	5472	5539	5605	5672	5739	
25	5805	5872	5938	6005	6071	6138	6204	6271	6338	6404	
26	6471	6537	6604	6670	6737	6803	6870	6937	7003	7070	
27	7136	7203	7269	7336	7402	7469	7535	7602	7668	7735	
28	7801	7868	7935	8001	8068	8134	8201	8267	8334	8400	
29	8467	8533	8600	8666	8733	8799	8866	8932	8999	9065	
6530	9132	9198	9265	9331	9398	9464	9531	9597	9664	9730	
31	9797	9863	9930	9996	0063	0129	0196	0262	0329	0395	66
32	815 0462	0528	0595	0661	0728	0794	0861	0927	0994	1060	1 6.6
33	1127	1193	1260	1326	1392	1459	1525	1592	1658	1725	2 13.2
34	1791	1858	1924	1991	2057	2124	2190	2257	2323	2389	3 19.8
35	2456	2522	2589	2655	2722	2788	2855	2921	2988	3054	4 26.4
36	3120	3187	3253	3320	3386	3453	3519	3586	3652	3718	5 33.0
37	3785	3851	3918	3984	4051	4117	4183	4250	4316	4383	6 39.6
38	4449	4516	4582	4648	4715	4781	4848	4914	4981	5047	7 46.2
39	5113	5180	5246	5313	5379	5445	5512	5578	5645	5711	8 52.8
6540	5777	5844	5910	5977	6043	6109	6176	6242	6309	6375	9 59.4
41	6441	6508	6574	6641	6707	6773	6840	6906	6973	7039	
42	7105	7172	7238	7305	7371	7437	7504	7570	7636	7703	
43	7769	7836	7902	7968	8035	8101	8167	8234	8300	8367	
44	8433	8499	8566	8632	8698	8765	8831	8897	8964	9030	
45	9097	9163	9229	9296	9362	9428	9495	9561	9627	9694	
46	9760	9826	9893	9959	0025	0092	0158	0224	0291	0357	
47	816 0423	0490	0556	0622	0689	0755	0821	0888	0954	1020	
48	1087	1153	1219	1286	1352	1418	1485	1551	1617	1684	
49	1750	1816	1883	1949	2015	2081	2148	2214	2280	2347	
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6550	816 2413	2479	2546	2612	2678	2745	2811	2877	2943	3010	
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52	3739	3805	3871	3938	4004	4070	4137	4203	4269	4335	
53	4402	4468	4534	4600	4667	4733	4799	4866	4932	4998	
54	5064	5131	5197	5263	5329	5396	5462	5528	5594	5661	
55	5727	5793	5859	5926	5992	6058	6124	6191	6257	6323	
56	6389	6456	6522	6588	6654	6721	6787	6853	6919	6986	
57	7052	7118	7184	7251	7317	7383	7449	7515	7582	7648	
58	7714	7780	7847	7913	7979	8045	8111	8178	8244	8310	
59	8376	8443	8509	8575	8641	8707	8774	8840	8906	8972	
6560	9038	9105	9171	9237	9303	9369	9436	9502	9568	9634	
61	9700	9767	9833	9899	9965	$\bar{0}$031	$\bar{0}$098	$\bar{0}$164	$\bar{0}$230	$\bar{0}$296	66
62	817 0362	0428	0495	0561	0627	0693	9759	0826	0892	0958	1 6.6
63	1024	1090	1156	1223	1289	1355	1421	1487	1553	1620	2 13.2
64	1686	1752	1818	1884	1950	2017	2083	2149	2215	2281	3 19.8
65	2347	2413	2480	2546	2612	2678	2744	2810	2876	2943	4 26.4
66	3009	3075	3141	3207	3273	3339	3406	3472	3538	3604	5 33.0
67	3670	3736	3802	3869	3935	4001	4067	4133	4199	4265	6 39.6
68	4331	4398	4464	4530	4596	4662	4728	4794	4860	4927	7 46.2
69	4993	5059	5125	5191	5257	5323	5389	5455	5521	5588	8 52.8
6570	5654	5720	5786	5852	5918	5984	6050	6116	6182	6249	9 59.4
71	6315	6381	6447	6513	6579	6645	6711	6777	6843	6909	
72	6976	7042	7108	7174	7240	7306	7372	7438	7504	7570	
73	7636	7702	7768	7835	7901	7967	8033	8099	8165	8231	
74	8297	8363	8429	8495	8561	8627	8693	8759	8825	8892	
75	8958	9024	9090	9156	9222	9288	9354	9420	9486	9552	
76	9618	9684	9750	9816	9882	9948	$\bar{0}$014	$\bar{0}$080	$\bar{0}$146	$\bar{0}$212	
77	818 0278	0344	0410	0477	0543	0609	0675	0741	0807	0873	
78	0939	1005	1071	1137	1203	1269	1335	1401	1467	1533	
79	1599	1665	1731	1797	1863	1929	1995	2061	2127	2193	
6580	2259	2325	2391	2457	2523	2589	2655	2721	2787	2853	
81	2919	2985	3051	3117	3183	3249	3315	3381	3447	3513	65
82	3579	3645	3711	3777	3843	3909	3975	4041	4107	4173	1 6.5
83	4239	4305	4370	4436	4502	4568	4634	4700	4766	4832	2 13.0
84	4898	4964	5030	5096	5162	5228	5294	5360	5426	5492	3 19.5
85	5558	5624	5690	5756	5822	5888	5953	6019	6085	6151	4 26.0
86	6217	6283	6349	6415	6481	6547	6613	6679	6745	6811	5 32.5
87	6877	6943	7008	7074	7140	7206	7272	7338	7404	7470	6 39.0
88	7536	7602	7668	7734	7800	7866	7931	7997	8063	8129	7 45.5
89	8195	8261	8327	8393	8459	8525	8591	8656	8722	8788	8 52.0
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91	9513	9579	9645	9711	9777	9843	9908	9974	$\bar{0}$040	$\bar{0}$106	
92	819 0172	0238	0304	0370	0436	0501	0567	0633	0699	0765	
93	0831	0897	0962	1028	1094	1160	1226	1292	1358	1424	
94	1489	1555	1621	1687	1753	1819	1885	1950	2016	2082	
95	2148	2214	2280	2346	2411	2477	2543	2609	2675	2741	
96	2806	2872	2938	3004	3070	3136	3202	3267	3333	3399	
97	3465	3531	3597	3662	3728	3794	3860	3926	3991	4057	
98	4123	4189	4255	4321	4386	4452	4518	4584	4650	4715	
99	4781	4847	4913	4979	5045	5110	5176	5242	5308	5374	
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02	6755	6821	6887	6953	7018	7084	7150	7216	7281	7347	
03	7413	7479	7545	7610	7676	7742	7808	7873	7939	8005	
04	8071	8136	8202	8268	8334	8399	8465	8531	8597	8662	
05	8728	8794	8860	8925	8991	9057	9123	9188	9254	9320	
06	9386	9451	9517	9583	9649	9714	9780	9846	9912	9977	
07	820 0043	0109	0175	0240	0306	0372	0437	0503	0569	0635	
08	0700	0766	0832	0898	0963	1029	1095	1160	1226	1292	
09	1358	1423	1489	1555	1620	1686	1752	1817	1883	1949	
6610	2015	2080	2146	2212	2277	2343	2409	2474	2540	2606	
11	2672	2737	2803	2869	2934	3000	3066	3131	3197	3263	66
12	3328	3394	3460	3525	3591	3657	3723	3788	3854	3920	1 6.6
13	3985	4051	4117	4182	4248	4314	4379	4445	4511	4576	2 13.2
14	4642	4708	4773	4839	4905	4970	5036	5102	5167	5233	3 19.8
15	5298	5364	5430	5495	5561	5627	5692	5758	5824	5889	4 26.4
16	5955	6021	6086	6152	6218	6283	6349	6414	6480	6546	5 33.0
17	6611	6677	6743	6808	6874	6939	7005	7071	7136	7202	6 39.6
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19	7924	7989	8055	8121	8186	8252	8317	8383	8449	8514	8 52.8
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21	9236	9301	9367	9433	9498	9564	9629	9695	9761	9826	
22	9892	9957	0023	0089	0154	0220	0285	0351	0416	0482	
23	821 0548	0613	0679	0744	0810	0875	0941	1007	1072	1138	
24	1203	1269	1334	1400	1465	1531	1597	1662	1728	1793	
25	1859	1924	1990	2055	2121	2187	2252	2318	2383	2449	
26	2514	2580	2645	2711	2776	2842	2908	2973	3039	3104	
27	3170	3235	3301	3366	3432	3497	3563	3628	3694	3759	
28	3825	3891	3956	4022	4087	4153	4218	4284	4349	4415	
29	4480	4546	4611	4677	4742	4808	4873	4939	5004	5070	
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32	6445	6511	6576	6642	6707	6773	6838	6904	6969	7034	1 6.5
33	7100	7165	7231	7296	7362	7427	7493	7558	7624	7689	2 13.0
34	7755	7820	7886	7951	8017	8082	8147	8213	8278	8344	3 19.5
35	8409	8475	8540	8606	8671	8737	8802	8867	8933	8998	4 26.0
36	9064	9129	9195	9260	9326	9391	9456	9522	9587	9653	5 32.5
37	9718	9784	9849	9914	9980	0045	0111	0176	0242	0307	6 39.0
38	822 0372	0438	0503	0569	0634	0700	0765	0830	0896	0961	7 45.5
39	1027	1092	1158	1223	1288	1354	1419	1485	1550	1615	8 52.0
6640	1681	1746	1812	1877	1942	2008	2073	2139	2204	2269	9 58.5
41	2335	2400	2466	2531	2596	2662	2727	2793	2858	2923	
42	2989	3054	3119	3185	3250	3316	3381	3446	3512	3577	
43	3643	3708	3773	3839	3904	3969	4035	4100	4166	4231	
44	4296	4362	4427	4492	4558	4623	4688	4754	4819	4884	
45	4950	5015	5081	5146	5211	5277	5342	5407	5473	5538	
46	5603	5669	5734	5799	5865	5930	5995	6061	6126	6191	
47	6257	6322	6387	6453	6518	6583	6649	6714	6779	6845	
48	6910	6975	7041	7106	7171	7237	7302	7367	7433	7498	
49	7563	7629	7694	7759	7825	7890	7955	8021	8086	8151	
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52	9522	9588	9653	9718	9784	9849	9914	9979	0045	0110	
53	823 0175	0241	0306	0371	0436	0502	0567	0632	0697	0763	
54	0828	0893	0958	1024	1089	1154	1220	1285	1350	1415	
55	1481	1546	1611	1676	1742	1807	1872	1937	2003	2068	
56	2133	2198	2264	2329	2394	2459	2525	2590	2655	2720	
57	2786	2851	2916	2981	3047	3112	3177	3242	3307	3373	
58	3438	3503	3568	3634	3699	3764	3829	3894	3960	4025	
59	4090	4155	4221	4286	4351	4416	4481	4547	4612	4677	
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62	6046	6111	6177	6242	6307	6372	6437	6503	6568	6633	1 6.5
63	6698	6763	6828	6894	6959	7024	7089	7154	7220	7285	2 13.0
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65	8002	8067	8132	8197	8262	8327	8392	8458	8523	8588	4 26.0
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67	9305	9370	9435	9500	9565	9630	9695	9761	9826	9891	6 39.0
68	9956	0021	0086	0151	0216	0282	0347	0412	0477	0542	7 45.5
69	824 0607	0672	0737	0803	0868	0933	0998	1063	1128	1193	8 52.0
6670	1258	1323	1389	1454	1519	1584	1649	1714	1779	1844	9 58.5
71	1909	1975	2040	2105	2170	2235	2300	2365	2430	2495	
72	2560	2625	2691	2756	2821	2886	2951	3016	3081	3146	
73	3211	3276	3341	3406	3472	3537	3602	3667	3732	3797	
74	3862	3927	3992	4057	4122	4187	4252	4318	4383	4448	
75	4513	4578	4643	4708	4773	4838	4903	4968	5033	5098	
76	5163	5228	5293	5358	5423	5489	5554	5619	5684	5749	
77	5814	5879	5944	6009	6074	6139	6204	6269	6334	6399	
78	6464	6529	6594	6659	6724	6789	6854	6919	6984	7049	
79	7114	7179	7244	7310	7375	7440	7505	7570	7635	7700	
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82	9065	9130	9195	9260	9325	9390	9455	9520	9585	9650	1 6.4
83	9715	9780	9845	9910	9975	0040	0105	0169	0234	0299	2 12.8
84	825 0364	0429	0494	0559	0624	0689	0754	0819	0884	0949	3 19.2
85	1014	1079	1144	1209	1274	1339	1404	1469	1534	1599	4 25.6
86	1664	1729	1794	1859	1924	1988	2053	2118	2183	2248	5 32.0
87	2313	2378	2443	2508	2573	2638	2703	2768	2833	2898	6 38.4
88	2963	3028	3093	3157	3222	3287	3352	3417	3482	3547	7 44.8
89	3612	3677	3742	3807	3872	3937	4002	4066	4131	4196	8 51.2
6690	4261	4326	4391	4456	4521	4586	4651	4716	4780	4845	9 57.6
91	4910	4975	5040	5105	5170	5235	5300	5365	5430	5494	
92	5559	5624	5689	5754	5819	5884	5949	6014	6078	6143	
93	6208	6273	6338	6403	6468	6533	6598	6662	6727	6792	
94	6857	6922	6987	7052	7117	7181	7246	7311	7376	7441	
95	7506	7571	7636	7700	7765	7830	7895	7960	8025	8090	
96	8154	8219	8284	8349	8414	8479	8544	8608	8673	8738	
97	8803	8868	8933	8998	9062	9127	9192	9257	9322	9387	
98	9451	9516	9581	9646	9711	9776	9840	9905	9970	0035	
99	826 0100	0165	0229	0294	0359	0424	0489	0554	0618	0683	
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02	2044	2109	2174	2239	2303	2368	2433	2498	2563	2627	
03	2692	2757	2822	2887	2951	3016	3081	3146	3210	3275	
04	3340	3405	3470	3534	3599	3664	3729	3794	3858	3923	
05	3988	4053	4117	4182	4247	4312	4376	4441	4506	4571	
06	4635	4700	4765	4830	4895	4959	5024	5089	5154	5218	
07	5283	5348	5413	5477	5542	5607	5672	5736	5801	5866	
08	5931	5995	6060	6125	6190	6254	6319	6384	6448	6513	
09	6578	6643	6707	6772	6837	6902	6966	7031	7096	7160	
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11	7872	7937	8002	8067	8131	8196	8261	8325	8390	8455	65
12	8519	8584	8649	8714	8778	8843	8908	8972	9037	9102	1 6.5
13	9166	9231	9296	9361	9425	9490	9555	9619	9684	9749	2 13.0
14	9813	9878	9943	0007	0072	0137	0201	0266	0331	0395	3 19.5
15	827 0460	0525	0590	0654	0719	0784	0848	0913	0978	1042	4 26.0
16	1107	1172	1236	1301	1366	1430	1495	1560	1624	1689	5 32.5
17	1753	1818	1883	1947	2012	2077	2141	2206	2271	2335	6 39.0
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19	3046	3111	3176	3240	3305	3370	3434	3499	3563	3628	8 52.0
6720	3693	3757	3822	3887	3951	4016	4080	4145	4210	4274	9 58.5
21	4339	4404	4468	4533	4597	4662	4727	4791	4856	4920	
22	4985	5050	5114	5179	5244	5308	5373	5437	5502	5567	
23	5631	5696	5760	5825	5889	5954	6019	6083	6148	6212	
24	6277	6342	6406	6471	6535	6600	6665	6729	6794	6858	
25	6923	6987	7052	7117	7181	7246	7310	7375	7439	7504	
26	7569	7633	7698	7762	7827	7891	7956	8021	8085	8150	
27	8214	8279	8343	8408	8473	8537	8602	8666	8731	8795	
28	8860	8924	8989	9053	9118	9183	9247	9312	9376	9441	
29	9505	9570	9634	9699	9763	9828	9893	9957	0022	0086	
6730	828 0151	0215	0280	0344	0409	0473	0538	0602	0667	0731	
31	0796	0860	0925	0989	1054	1119	1183	1248	1312	1377	64
32	1441	1506	1570	1635	1699	1764	1828	1893	1957	2022	1 6.4
33	2086	2151	2215	2280	2344	2409	2473	2538	2602	2667	2 12.8
34	2731	2796	2860	2925	2989	3054	3118	3183	3247	3312	3 19.2
35	3376	3440	3505	3569	3634	3698	3763	3827	3892	3956	4 25.6
36	4021	4085	4150	4214	4279	4343	4408	4472	4537	4601	5 32.0
37	4665	4730	4794	4859	4923	4988	5052	5117	5181	5246	6 38.4
38	5310	5375	5439	5503	5568	5632	5697	5761	5826	5890	7 44.8
39	5955	6019	6083	6148	6212	6277	6341	6406	6470	6535	8 51.2
6740	6599	6663	6728	6792	6857	6921	6986	7050	7114	7179	9 57.6
41	7243	7308	7372	7437	7501	7565	7630	7694	7759	7823	
42	7887	7952	8016	8081	8145	8210	8274	8338	8403	8467	
43	8532	8596	8660	8725	8789	8854	8918	8982	9047	9111	
44	9176	9240	9304	9369	9433	9498	9562	9626	9691	9755	
45	9820	9884	9948	0013	0077	0141	0206	0270	0335	0399	
46	829 0463	0528	0592	0656	0721	0785	0850	0914	0978	1043	
47	1107	1171	1236	1300	1365	1429	1493	1558	1622	1686	
48	1751	1815	1879	1944	2008	2073	2137	2201	2266	2330	
49	2394	2459	2523	2587	2652	2716	2780	2845	2909	2973	
6750	3038	3102	3166	3231	3295	3359	3424	3488	3552	3617	
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6750	829 3038	3102	3166	3231	3295	3359	3424	3488	3552	3617	
51	3681	3745	3810	3874	3938	4003	4067	4131	4196	4260	
52	4324	4389	4453	4517	4582	4646	4710	4775	4839	4903	
53	4967	5032	5096	5160	5225	5289	5353	5418	5482	5546	
54	5611	5675	5739	5803	5868	5932	5996	6061	6125	6189	
55	6254	6318	6382	6446	6511	6575	6639	6704	6768	6832	
56	6896	6961	7025	7089	7154	7218	7282	7346	7411	7475	
57	7539	7603	7668	7732	7796	7861	7925	7989	8053	8118	
58	8182	8246	8310	8375	8439	8503	8567	8632	8696	8760	
59	8824	8889	8953	9017	9081	9146	9210	9274	9338	9403	
6760	9467	9531	9595	9660	9724	9788	9852	9917	9981	$\bar{0}045$	
61	830 0109	0174	0238	0302	0366	0431	0495	0559	0623	0687	64
62	0752	0816	0880	0944	1009	1073	1137	1201	1265	1330	1 6.4
63	1394	1458	1522	1587	1651	1715	1779	1843	1908	1972	2 12.8
64	2036	2100	2164	2229	2293	2357	2421	2485	2550	2614	3 19.2
65	2678	2742	2806	2871	2935	2999	3063	3127	3192	3256	4 25.6
66	3320	3384	3448	3512	3577	3641	3705	3769	3833	3898	5 32.0
67	3962	4026	4090	4154	4218	4283	4347	4411	4475	4539	6 38.4
68	4604	4668	4732	4796	4860	4924	4988	5053	5117	5181	7 44.8
69	5245	5309	5373	5438	5502	5566	5630	5694	5758	5823	8 51.2
6770	5887	5951	6015	6079	6143	6207	6272	6336	6400	6464	9 57.6
71	6528	6592	6656	6721	6785	6849	6913	6977	7041	7105	
72	7169	7234	7298	7362	7426	7490	7554	7618	7683	7747	
73	7811	7875	7939	8003	8067	8131	8195	8260	8324	8388	
74	8452	8516	8580	8644	8708	8772	8837	8901	8965	9029	
75	9093	9157	9221	9285	9349	9413	9478	9542	9606	9670	
76	9734	9798	9862	9926	9990	$\bar{0}054$	$\bar{0}119$	$\bar{0}183$	$\bar{0}247$	$\bar{0}311$	
77	831 0375	0439	0503	0567	0631	0695	0759	0823	0887	0952	
78	1016	1080	1144	1208	1272	1336	1400	1464	1528	1592	
79	1656	1720	1784	1849	1913	1977	2041	2105	2169	2233	
6780	2297	2361	2425	2489	2553	2617	2681	2745	2809	2873	
81	2937	3001	3066	3130	3194	3258	3322	3386	3450	3514	63
82	3578	3642	3706	3770	3834	3898	3962	4026	4090	4154	1 6.3
83	4218	4282	4346	4410	4474	4538	4602	4666	4730	4794	2 12.6
84	4858	4922	4986	5050	5114	5178	5242	5306	5371	5435	3 18.9
85	5499	5563	5627	5691	5755	5819	5883	5947	6011	6075	4 25.2
86	6139	6203	6267	6331	6395	6459	6523	6587	6651	6715	5 31.5
87	6778	6842	6906	6970	7034	7098	7162	7226	7290	7354	6 37.8
88	7418	7482	7546	7610	7674	7738	7802	7866	7930	7994	7 44.1
89	8058	8122	8186	8250	8314	8378	8442	8506	8570	8634	8 50.4
6790	8698	8762	8826	8890	8954	9018	9081	9145	9209	9273	9 56.7
91	9337	9401	9465	9529	9593	9657	9721	9785	9849	9913	
92	9977	$\bar{0}041$	$\bar{0}105$	$\bar{0}169$	$\bar{0}233$	$\bar{0}296$	$\bar{0}360$	$\bar{0}424$	$\bar{0}488$	$\bar{0}552$	
93	832 0616	0680	0744	0808	0872	0936	1000	1064	1128	1192	
94	1255	1319	1383	1447	1511	1575	1639	1703	1767	1831	
95	1895	1959	2022	2086	2150	2214	2278	2342	2406	2470	
96	2534	2598	2662	2725	2789	2853	2917	2981	3045	3109	
97	3173	3237	3300	3364	3428	3492	3556	3620	3684	3748	
98	3812	3875	3939	4003	4067	4131	4195	4259	4323	4387	
99	4450	4514	4578	4642	4706	4770	4834	4898	4961	5025	
6800	5089	5153	5217	5281	5345	5408	5472	5536	5600	5664	
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6800	832 5089	5153	5217	5281	5345	5408	5472	5536	5600	5664	
01	5728	5792	5855	5919	5983	6047	6111	6175	6239	6302	
02	6366	6430	6494	6558	6622	6686	6749	6813	6877	6941	
03	7005	7069	7132	7196	7260	7324	7388	7452	7515	7579	
04	7643	7707	7771	7835	7898	7962	8026	8090	8154	8217	
05	8281	8345	8409	8473	8537	8600	8664	8728	8792	8856	
06	8919	8983	9047	9111	9175	9238	9302	9366	9430	9494	
07	9558	9621	9685	9749	9813	9877	9940	0004	0068	0132	
08	833 0195	0259	0323	0387	0451	0514	0578	0642	0706	0770	
09	0833	0897	0961	1025	1088	1152	1216	1280	1344	1407	
6810	1471	1535	1599	1662	1726	1790	1854	1918	1981	2045	
11	2109	2173	2236	2300	2364	2428	2491	2555	2619	2683	64
12	2746	2810	2874	2938	3001	3065	3129	3193	3256	3320	1 6.4
13	3384	3448	3511	3575	3639	3703	3766	3830	3894	3958	2 12.8
14	4021	4085	4149	4212	4276	4340	4404	4467	4531	4595	3 19.2
15	4659	4722	4786	4850	4913	4977	5041	5105	5168	5232	4 25.6
16	5296	5360	5423	5487	5551	5614	5678	5742	5806	5869	5 32.0
17	5933	5997	6060	6124	6188	6251	6315	6379	6443	6506	6 38.4
18	6570	6634	6697	6761	6825	6888	6952	7016	7080	7143	7 44.8
19	7207	7271	7334	7398	7462	7525	7589	7653	7716	7780	8 51.2
6820	7844	7907	7971	8035	8098	8162	8226	8289	8353	8417	9 57.6
21	8480	8544	8608	8672	8735	8799	8862	8926	8990	9053	
22	9117	9181	9244	9308	9372	9435	9499	9563	9626	9690	
23	9754	9817	9881	9945	0008	0072	0136	0199	0263	0327	
24	834 0390	0454	0517	0581	0645	0708	0772	0836	0899	0963	
25	1027	1090	1154	1217	1281	1345	1408	1472	1536	1599	
26	1663	1726	1790	1854	1917	1981	2045	2108	2172	2235	
27	2299	2363	2426	2490	2553	2617	2681	2744	2808	2872	
28	2935	2999	3062	3126	3190	3253	3317	3380	3444	3508	
29	3571	3635	3698	3762	3826	3889	3953	4016	4080	4143	
6830	4207	4271	4334	4398	4461	4525	4589	4652	4716	4779	
31	4843	4906	4970	5034	5097	5161	5224	5288	5351	5415	63
32	5479	5542	5606	5669	5733	5796	5860	5924	5987	6051	1 6.3
33	6114	6178	6241	6305	6368	6432	6496	6559	6623	6686	2 12.6
34	6750	6813	6877	6940	7004	7067	7131	7195	7258	7322	3 18.9
35	7385	7449	7512	7576	7639	7703	7766	7830	7893	7957	4 25.2
36	8021	8084	8148	8211	8275	8338	8402	8465	8529	8592	5 31.5
37	8656	8719	8783	8846	8910	8973	9037	9100	9164	9227	6 37.8
38	9291	9354	9418	9481	9545	9609	9672	9736	9799	9863	7 44.1
39	9926	9990	0053	0117	0180	0244	0307	0371	0434	0498	8 50.4
6840	835 0561	0625	0688	0751	0815	0878	0942	1005	1069	1132	9 56.7
41	1196	1259	1323	1386	1450	1513	1577	1640	1704	1767	
42	1831	1894	1958	2021	2085	2148	2212	2275	2338	2402	
43	2465	2529	2592	2656	2719	2783	2846	2910	2973	3037	
44	3100	3163	3227	3290	3354	3417	3481	3544	3608	3671	
45	3735	3798	3861	3925	3988	4052	4115	4179	4242	4306	
46	4369	4432	4496	4559	4623	4686	4750	4813	4876	4940	
47	5003	5067	5130	5194	5257	5320	5384	5447	5511	5574	
48	5638	5701	5764	5828	5891	5955	6018	6081	6145	6208	
49	6272	6335	6398	6462	6525	6589	6652	6716	6779	6842	
6850	6906	6969	7083	7096	7159	7223	7286	7349	7413	7476	
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6850	835 6906	6969	7033	7096	7159	7223	7286	7349	7413	7476	
51	7540	7603	7666	7730	7793	7857	7920	7983	8047	8110	
52	8174	8237	8300	8364	8427	8490	8554	8617	8681	8744	
53	8807	8871	8934	8997	9061	9124	9188	9251	9314	9378	
54	9441	9504	9568	9631	9694	9758	9821	9885	9948	$\bar{0}011$	
55	836 0075	0138	0201	0265	0328	0391	0455	0518	0581	0645	
56	0708	0771	0835	0898	0961	1025	1088	1151	1215	1278	
57	1341	1405	1468	1531	1595	1658	1721	1785	1848	1911	
58	1975	2038	2101	2165	2228	2291	2355	2418	2481	2545	
59	2608	2671	2735	2798	2861	2925	2988	3051	3115	3178	
6860	3241	3304	3368	3431	3494	3558	3621	3684	3748	3811	
61	3874	3937	4001	4064	4127	4191	4254	4317	4381	4444	63
62	4507	4570	4634	4697	4760	4824	4887	4950	5013	5077	1 6.3
63	5140	5203	5267	5330	5393	5456	5520	5583	5646	5709	2 12.6
64	5773	5836	5899	5963	6026	6089	6152	6216	6279	6342	3 18.9
65	6405	6469	6532	6595	6658	6722	6785	6848	6911	6975	4 25.2
66	7038	7101	7164	7228	7291	7354	7417	7481	7544	7607	5 31.5
67	7670	7734	7797	7860	7923	7987	8050	8113	8176	8240	6 37.8
68	8303	8366	8429	8493	8556	8619	8682	8745	8809	8872	7 44.1
69	8935	8998	9062	9125	9188	9251	9314	9378	9441	9504	8 50.4
6870	9567	9631	9694	9757	9820	9883	9947	$\bar{0}010$	$\bar{0}073$	$\bar{0}136$	9 56.7
71	837 0199	0263	0326	0389	0452	0516	0579	0642	0705	0768	
72	0832	0895	0958	1021	1084	1147	1211	1274	1337	1400	
73	1463	1527	1590	1653	1716	1779	1843	1906	1969	2032	
74	2095	2158	2222	2285	2348	2411	2474	2538	2601	2664	
75	2727	2790	2853	2917	2980	3043	3106	3169	3232	3296	
76	3359	3422	3485	3548	3611	3674	3738	3801	3864	3927	
77	3990	4053	4117	4180	4243	4306	4369	4432	4495	4559	
78	4622	4685	4748	4811	4874	4937	5001	5064	5127	5190	
79	5253	5316	5379	5442	5506	5569	5632	5695	5758	5821	
6880	5884	5948	6011	6074	6137	6200	6263	6326	6389	6452	
81	6516	6579	6642	6705	6768	6831	6894	6957	7020	7084	62
82	7147	7210	7273	7336	7399	7462	7525	7588	7652	7715	1 6.2
83	7778	7841	7904	7967	8030	8093	8156	8219	8282	8346	2 12.4
84	8409	8472	8535	8598	8661	8724	8787	8850	8913	8976	3 18.6
85	9039	9103	9166	9229	9292	9355	9418	9481	9544	9607	4 24.8
86	9670	9733	9796	9859	9922	9986	$\bar{0}049$	$\bar{0}112$	$\bar{0}175$	$\bar{0}238$	5 31.0
87	838 0301	0364	0427	0490	0553	0616	0679	0742	0805	0868	6 37.2
88	0931	0994	1057	1121	1184	1247	1310	1373	1436	1499	7 43.4
89	1562	1625	1688	1751	1814	1877	1940	2003	2066	2129	8 49.6
6890	2192	2255	2318	2381	2444	2507	2570	2633	2696	2759	9 55.8
91	2822	2886	2949	3012	3075	3138	3201	3264	3327	3390	
92	3453	3516	3579	3642	3705	3768	3831	3894	3957	4020	
93	4083	4146	4209	4272	4335	4398	4461	4524	4587	4650	
94	4713	4776	4839	4902	4965	5028	5091	5154	5217	5280	
95	5343	5406	5469	5532	5595	5658	5721	5784	5847	5910	
96	5973	6036	6098	6161	6224	6287	6350	6413	6476	6539	
97	6602	6665	6728	6791	6854	6917	6980	7043	7106	7169	
98	7232	7295	7358	7421	7484	7547	7610	7673	7736	7798	
99	7861	7924	7987	8050	8113	8176	8239	8302	8365	8428	
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6900	838 8491	8554	8617	8680	8743	8806	8869	8931	8994	9057	
01	9120	9183	9246	9309	9372	9435	9498	9561	9624	9687	
02	9750	9812	9875	9938	0001	0064	0127	0190	0253	0316	
03	839 0379	0442	0505	0567	0630	0693	0756	0819	0882	0945	
04	1008	1071	1134	1197	1259	1322	1385	1448	1511	1574	
05	1637	1700	1763	1826	1888	1951	2014	2077	2140	2203	
06	2266	2329	2392	2454	2517	2580	2643	2706	2769	2832	
07	2895	2957	3020	3083	3146	3209	3272	3335	3398	3460	
08	3523	3586	3649	3712	3775	3838	3900	3963	4026	4089	
09	4152	4215	4278	4341	4403	4466	4529	4592	4655	4718	
6910	4780	4843	4906	4969	5032	5095	5158	5220	5283	5346	
11	5409	5472	5535	5597	5660	5723	5786	5849	5912	5974	63
12	6037	6100	6163	6226	6289	6351	6414	6477	6540	6603	1 6.3
13	6666	6728	6791	6854	6917	6980	7042	7105	7168	7231	2 12.6
14	7294	7357	7419	7482	7545	7608	7671	7733	7796	7859	3 18.9
15	7922	7985	8047	8110	8173	8236	8299	8361	8424	8487	4 25.2
16	8550	8613	8675	8738	8801	8864	8927	8989	9052	9115	5 31.5
17	9178	9241	9303	9366	9429	9492	9554	9617	9680	9743	6 37.8
18	9806	9868	9931	9994	0057	0119	0182	0245	0308	0371	7 44.1
19	840 0433	0496	0559	0622	0684	0747	0810	0873	0935	0998	8 50.4
6920	1061	1124	1186	1249	1312	1375	1437	1500	1563	1626	9 56.7
21	1688	1751	1814	1877	1939	2002	2065	2128	2190	2253	
22	2316	2379	2441	2504	2567	2630	2692	2755	2818	2881	
23	2943	3006	3069	3132	3194	3257	3320	3382	3445	3508	
24	3571	3633	3696	3759	3821	3884	3947	4010	4072	4135	
25	4198	4260	4323	4386	4449	4511	4574	4637	4699	4762	
26	4825	4888	4950	5013	5076	5138	5201	5264	5326	5389	
27	5452	5515	5577	5640	5703	5765	5828	5891	5953	6016	
28	6079	6141	6204	6267	6330	6392	6455	6518	6580	6643	
29	6706	6768	6831	6894	6956	7019	7082	7144	7207	7270	
6930	7332	7395	7458	7520	7583	7646	7708	7771	7834	7896	
31	7959	8022	8084	8147	8210	8272	8335	8398	8460	8523	62
32	8586	8648	8711	8773	8836	8899	8961	9024	9087	9149	1 6.2
33	9212	9275	9337	9400	9463	9525	9588	9650	9713	9776	2 12.4
34	9838	9901	9964	0026	0089	0152	0214	0277	0339	0402	3 18.6
35	841 0465	0527	0590	0653	0715	0778	0840	0903	0966	1028	4 24.8
36	1091	1153	1216	1279	1341	1404	1467	1529	1592	1654	5 31.0
37	1717	1780	1842	1905	1967	2030	2093	2155	2218	2280	6 37.2
38	2343	2406	2468	2531	2593	2656	2719	2781	2844	2906	7 43.4
39	2969	3031	3094	3157	3219	3282	3344	3407	3470	3532	8 49.6
6940	3595	3657	3720	3782	3845	3908	3970	4033	4095	4158	9 55.8
41	4220	4283	4346	4408	4471	4533	4596	4658	4721	4784	
42	4846	4909	4971	5034	5096	5159	5221	5284	5347	5409	
43	5472	5534	5597	5659	5722	5784	5847	5909	5972	6035	
44	6097	6160	6222	6285	6347	6410	6472	6535	6597	6660	
45	6723	6785	6848	6910	6973	7035	7098	7160	7223	7285	
46	7348	7410	7473	7535	7598	7660	7723	7785	7848	7910	
47	7973	8036	8098	8161	8223	8286	8348	8411	8473	8536	
48	8598	8661	8723	8786	8848	8911	8973	9036	9098	9161	
49	9223	9286	9348	9411	9473	9536	9598	9661	9723	9786	
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52	1098	1160	1223	1285	1348	1410	1472	1535	1597	1660	
53	1722	1785	1847	1910	1972	2035	2097	2160	2222	2284	
54	2347	2409	2472	2534	2597	2659	2722	2784	2846	2909	
55	2971	3034	3096	3159	3221	3284	3346	3408	3471	3533	
56	3596	3658	3721	3783	3845	3908	3970	4033	4095	4158	
57	4220	4282	4345	4407	4470	4532	4595	4657	4719	4782	
58	4844	4907	4969	5031	5094	5156	5219	5281	5344	5406	
59	5468	5531	5593	5656	5718	5780	5843	5905	5968	6030	
6960	6092	6155	6217	6280	6342	6404	6467	6529	6592	6654	
61	6716	6779	6841	6904	6966	7028	7091	7153	7215	7278	63
62	7340	7403	7465	7527	7590	7652	7714	7777	7839	7902	1 6.3
63	7964	8026	8089	8151	8213	8276	8338	8401	8463	8525	2 12.6
64	8588	8650	8712	8775	8837	8899	8962	9024	9086	9149	3 18.9
65	9211	9274	9336	9398	9461	9523	9585	9648	9710	9772	4 25.2
66	9835	9897	9959	0022	0084	0146	0209	0271	0333	0396	5 31.5
67	843 0458	0520	0583	0645	0707	0770	0832	0894	0957	1019	6 37.8
68	1081	1144	1206	1268	1331	1393	1455	1518	1580	1642	7 44.1
69	1705	1767	1829	1892	1954	2016	2079	2141	2203	2265	8 50.4
6970	2328	2390	2452	2515	2577	2639	2702	2764	2826	2889	9 56.7
71	2951	3013	3075	3138	3200	3262	3325	3387	3449	3511	
72	3574	3636	3698	3761	3823	3885	3948	4010	4072	4134	
73	4197	4259	4321	4383	4446	4508	4570	4633	4695	4757	
74	4819	4882	4944	5006	5069	5131	5193	5255	5318	5380	
75	5442	5504	5567	5629	5691	5753	5816	5878	5940	6002	
76	6065	6127	6189	6251	6314	6376	6438	6500	6563	6625	
77	6687	6749	6812	6874	6936	6998	7061	7123	7185	7247	
78	7310	7372	7434	7496	7559	7621	7683	7745	7808	7870	
79	7932	7994	8056	8119	8181	8243	8305	8368	8430	8492	
6980	8554	8616	8679	8741	8803	8865	8928	8990	9052	9114	
81	9176	9239	9301	9363	9425	9487	9550	9612	9674	9736	62
82	9798	9861	9923	9985	0047	0109	0172	0234	0296	0358	1 6.2
83	844 0420	0483	0545	0607	0669	0731	0794	0856	0918	0980	2 12.4
84	1042	1104	1167	1229	1291	1353	1415	1478	1540	1602	3 18.6
85	1664	1726	1788	1851	1913	1975	2037	2099	2161	2224	4 24.8
86	2286	2348	2410	2472	2534	2597	2659	2721	2783	2845	5 31.0
87	2907	2970	3032	3094	3156	3218	3280	3343	3405	3467	6 37.2
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91	5393	5455	5517	5579	5642	5704	5766	5828	5890	5952	
92	6014	6076	6138	6201	6263	6325	6387	6449	6511	6573	
93	6635	6697	6759	6822	6884	6946	7008	7070	7132	7194	
94	7256	7318	7380	7443	7505	7567	7629	7691	7753	7815	
95	7877	7939	8001	8063	8126	8188	8250	8312	8374	8436	
96	8498	8560	8622	8684	8746	8808	8870	8933	8995	9057	
97	9119	9181	9243	9305	9367	9429	9491	9553	9615	9677	
98	9739	9801	9863	9926	9988	0050	0112	0174	0236	0298	
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02	2221	2283	2345	2407	2469	2531	2593	2655	2717	2779	
03	2841	2903	2965	3027	3089	3151	3213	3275	3337	3399	
04	3461	3523	3585	3647	3709	3771	3833	3895	3957	4019	
05	4081	4143	4205	4267	4329	4391	4453	4515	4577	4639	
06	4701	4763	4825	4887	4949	5011	5073	5135	5197	5259	
07	5321	5383	5445	5507	5569	5631	5693	5755	5817	5879	
08	5941	6003	6065	6127	6189	6251	6313	6375	6437	6499	
09	6561	6623	6685	6746	6808	6870	6932	6994	7056	7118	
7010	7180	7242	7304	7366	7428	7490	7552	7614	7676	7738	
11	7800	7862	7924	7986	8047	8109	8171	8233	8295	8357	68
12	8419	8481	8543	8605	8667	8729	8791	8853	8915	8976	1 6.3
13	9038	9100	9162	9224	9286	9348	9410	9472	9534	9596	2 12.6
14	9658	9720	9781	9843	9905	9967	0029	0091	0153	0215	3 18.9
15	846 0277	0339	0401	0462	0524	0586	0648	0710	0772	0834	4 25.2
16	0896	0958	1020	1082	1143	1205	1267	1329	1391	1453	5 31.5
17	1515	1577	1639	1700	1762	1824	1886	1948	2010	2072	6 37.8
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19	2752	2814	2876	2938	3000	3062	3124	3186	3247	3309	8 50.4
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22	4608	4670	4732	4794	4856	4917	4979	5041	5103	5165	
23	5227	5289	5350	5412	5474	5536	5598	5660	5721	5783	
24	5845	5907	5969	6031	6092	6154	6216	6278	6340	6401	
25	6463	6525	6587	6649	6711	6772	6834	6896	6958	7020	
26	7081	7143	7205	7267	7329	7391	7452	7514	7576	7638	
27	7700	7761	7823	7885	7947	8009	8070	8132	8194	8256	
28	8318	8379	8441	8503	8565	8626	8688	8750	8812	8874	
29	8935	8997	9059	9121	9183	9244	9306	9368	9430	9491	
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34	2024	2085	2147	2209	2271	2332	2394	2456	2518	2579	3 18.6
35	2641	2703	2764	2826	2888	2950	3011	3073	3135	3197	4 24.8
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37	3876	3937	3999	4061	4122	4184	4246	4307	4369	4431	6 37.2
38	4493	4554	4616	4678	4739	4801	4863	4925	4986	5048	7 43.4
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41	6343	6405	6467	6528	6590	6652	6714	6775	6837	6899	
42	6960	7022	7084	7145	7207	7269	7330	7392	7454	7515	
43	7577	7639	7700	7762	7824	7885	7947	8009	8070	8132	
44	8193	8255	8317	8378	8440	8502	8563	8625	8687	8748	
45	8810	8872	8933	8995	9057	9118	9180	9241	9303	9365	
46	9426	9488	9550	9611	9673	9735	9796	9858	9919	9981	
47	848 0043	0104	0166	0228	0289	0351	0412	0474	0536	0597	
48	0659	0721	0782	0844	0905	0967	1029	1090	1152	1213	
49	1275	1337	1398	1460	1522	1583	1645	1706	1768	1830	
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52	3123	3185	3246	3308	3369	3431	3493	3554	3616	3677	
53	3739	3800	3862	3924	3985	4047	4108	4170	4231	4293	
54	4355	4416	4478	4539	4601	4662	4724	4786	4847	4909	
55	4970	5032	5093	5155	5216	5278	5340	5401	5463	5524	
56	5586	5647	5709	5770	5832	5893	5955	6017	6078	6140	
57	6201	6263	6324	6386	6447	6509	6570	6632	6693	6755	
58	6817	6878	6940	7001	7063	7124	7186	7247	7309	7370	
59	7432	7493	7555	7616	7678	7739	7801	7862	7924	7985	
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62	9277	9339	9400	9462	9523	9585	9646	9708	9769	9831	1 6.2
63	9892	9954	0015	0077	0138	0199	0261	0322	0384	0445	2 12.4
64	849 0507	0568	0630	0691	0753	0814	0876	0937	0999	1060	3 18.6
65	1122	1183	1245	1306	1368	1429	1490	1552	1613	1675	4 24.8
66	1736	1798	1859	1921	1982	2044	2105	2167	2228	2289	5 31.0
67	2351	2412	2474	2535	2597	2658	2720	2781	2843	2904	6 37.2
68	2965	3027	3088	3150	3211	3273	3334	3396	3457	3518	7 43.4
69	3580	3641	3703	3764	3826	3887	3948	4010	4071	4133	8 49.6
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71	4808	4870	4931	4993	5054	5115	5177	5238	5300	5361	
72	5423	5484	5545	5607	5668	5730	5791	5852	5914	5975	
73	6037	6098	6159	6221	6282	6344	6405	6466	6528	6589	
74	6651	6712	6773	6835	6896	6958	7019	7080	7142	7203	
75	7264	7326	7387	7449	7510	7571	7633	7694	7755	7817	
76	7878	7940	8001	8062	8124	8185	8246	8308	8369	8431	
77	8492	8553	8615	8676	8737	8799	8860	8922	8983	9044	
78	9106	9167	9228	9290	9351	9412	9474	9535	9596	9658	
79	9719	9780	9842	9903	9963	0026	0087	0149	0210	0271	
7080	850 0333	0394	0455	0517	0578	0639	0701	0762	0823	0885	
81	0946	1007	1069	1130	1191	1253	1314	1375	1437	1498	61
82	1559	1621	1682	1743	1805	1866	1927	1988	2050	2111	1 6.1
83	2172	2234	2295	2356	2418	2479	2540	2602	2663	2724	2 12.2
84	2786	2847	2908	2969	3031	3092	3153	3215	3276	3337	3 18.3
85	3399	3460	3521	3582	3644	3705	3766	3828	3889	3950	4 24.4
86	4011	4073	4134	4195	4257	4318	4379	4440	4502	4563	5 30.5
87	4624	4686	4747	4808	4869	4931	4992	5053	5115	5176	6 36.6
88	5237	5298	5360	5421	5482	5543	5605	5666	5727	5788	7 42.7
89	5850	5911	5972	6034	6095	6156	6217	6279	6340	6401	8 48.8
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91	7075	7136	7197	7259	7320	7381	7442	7504	7565	7626	
92	7687	7749	7810	7871	7932	7993	8055	8116	8177	8238	
93	8300	8361	8422	8483	8545	8606	8667	8728	8789	8851	
94	8912	8973	9034	9095	9157	9218	9279	9340	9402	9463	
95	9524	9585	9646	9708	9769	9830	9891	9952	0014	0075	
96	851 0136	0197	0258	0320	0381	0442	0503	0564	0626	0687	
97	0748	0809	0870	0932	0993	1054	1115	1176	1238	1299	
98	1360	1421	1482	1544	1605	1666	1727	1788	1849	1911	
99	1972	2033	2094	2155	2216	2278	2339	2400	2461	2522	
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02	3807	3868	3929	3990	4051	4112	4174	4235	4296	4357
03	4418	4479	4540	4602	4663	4724	4785	4846	4907	4968
04	5030	5091	5152	5213	5274	5335	5396	5457	5519	5580
05	5641	5702	5763	5824	5885	5946	6008	6069	6130	6191
06	6252	6313	6374	6435	6496	6558	6619	6680	6741	6802
07	6863	6924	6985	7046	7108	7169	7230	7291	7352	7413
08	7474	7535	7596	7657	7719	7780	7841	7902	7963	8024
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11	9307	9368	9429	9490	9551	9612	9673	9734	9795	9856
12	9917	9979	0040	0101	0162	0223	0284	0345	0406	0467
13	852 0528	0589	0650	0711	0772	0833	0894	0955	1017	1078
14	1139	1200	1261	1322	1383	1444	1505	1566	1627	1688
15	1749	1810	1871	1932	1993	2054	2115	2176	2237	2298
16	2359	2420	2481	2542	2604	2665	2726	2787	2848	2909
17	2970	3031	3092	3153	3214	3275	3336	3397	3458	3519
18	3580	3641	3702	3763	3824	3885	3946	4007	4068	4129
19	4190	4251	4312	4373	4434	4495	4556	4617	4678	4739
7120	4800	4861	4922	4983	5044	5105	5166	5227	5288	5349
21	5410	5471	5532	5593	5654	5715	5776	5837	5898	5959
22	6020	6081	6142	6203	6264	6325	6386	6447	6508	6568
23	6629	6690	6751	6812	6873	6934	6995	7056	7117	7178
24	7239	7300	7361	7422	7483	7544	7605	7666	7727	7788
25	7849	7910	7971	8032	8092	8153	8214	8275	8336	8397
26	8458	8519	8580	8641	8702	8763	8824	8885	8946	9007
27	9068	9129	9189	9250	9311	9372	9433	9494	9555	9616
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29	853 0286	0347	0408	0469	0530	0591	0652	0713	0773	0834
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31	1504	1565	1626	1687	1748	1809	1870	1931	1992	2052
32	2113	2174	2235	2296	2357	2418	2479	2540	2600	2661
33	2722	2783	2844	2905	2966	3027	3088	3148	3209	3270
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36	4548	4609	4670	4731	4792	4853	4914	4974	5035	5096
37	5157	5218	5279	5340	5400	5461	5522	5583	5644	5705
38	5765	5826	5887	5948	6009	6070	6130	6191	6252	6313
39	6374	6435	6495	6556	6617	6678	6739	6800	6860	6921
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41	7590	7651	7712	7773	7834	7894	7955	8016	8077	8138
42	8198	8259	8320	8381	8442	8502	8563	8624	8685	8746
43	8807	8867	8928	8989	9050	9110	9171	9232	9293	9354
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46	0630	0691	0752	0812	0873	0934	0995	1056	1116	1177
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48	1845	1906	1967	2028	2088	2149	2210	2271	2331	2392
49	2453	2514	2574	2635	2696	2757	2817	2878	2939	3000
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7150	854 3060	3121	3182	3243	3303	3364	3425	3486	3546	3607	
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52	4275	4336	4397	4457	4518	4579	4639	4700	4761	4822	
53	4882	4943	5004	5064	5125	5186	5247	5307	5368	5429	
54	5489	5550	5611	5671	5732	5793	5854	5914	5975	6036	
55	6096	6157	6218	6278	6339	6400	6461	6521	6582	6643	
56	6703	6764	6825	6885	6946	7007	7067	7128	7189	7249	
57	7310	7371	7432	7492	7553	7614	7674	7735	7796	7856	
58	7917	7978	8038	8099	8160	8220	8281	8342	8402	8463	
59	8524	8584	8645	8706	8766	8827	8888	8948	9009	9070	
7160	9130	9191	9252	9312	9373	9433	9494	9555	9615	9676	
61	9737	9797	9858	9919	9979	0040	0101	0161	0222	0283	61
62	855 0343	0404	0464	0525	0586	0646	0707	0768	0828	0889	1 6.1
63	0950	1010	1071	1131	1192	1253	1313	1374	1435	1495	2 12.2
64	1556	1616	1677	1738	1798	1859	1919	1980	2041	2101	3 18.3
65	2162	2223	2283	2344	2404	2465	2526	2586	2647	2707	4 24.4
66	2768	2829	2889	2950	3010	3071	3132	3192	3253	3313	5 30.5
67	3374	3435	3495	3556	3616	3677	3738	3798	3859	3919	6 36.6
68	3980	4041	4101	4162	4222	4283	4343	4404	4465	4525	7 42.7
69	4586	4646	4707	4768	4828	4889	4949	5010	5070	5131	8 48.8
7170	5192	5252	5313	5373	5434	5494	5555	5616	5676	5737	9 54.9
71	5797	5858	5918	5979	6039	6100	6161	6221	6282	6342	
72	6403	6463	6524	6584	6645	6706	6766	6827	6887	6948	
73	7008	7069	7129	7190	7250	7311	7372	7432	7493	7553	
74	7614	7674	7735	7795	7856	7916	7977	8037	8098	8159	
75	8219	8280	8340	8401	8461	8522	8582	8643	8703	8764	
76	8824	8885	8945	9006	9066	9127	9187	9248	9308	9369	
77	9429	9490	9550	9611	9672	9732	9793	9853	9914	9974	
78	856 0035	0095	0156	0216	0277	0337	0398	0458	0519	0579	
79	0640	0700	0761	0821	0882	0942	1002	1063	1123	1184	
7180	1244	1305	1365	1426	1486	1547	1607	1668	1728	1789	
81	1849	1910	1970	2031	2091	2152	2212	2273	2333	2394	60
82	2454	2514	2575	2635	2696	2756	2817	2877	2938	2998	1 6.0
83	3059	3119	3180	3240	3301	3361	3421	3482	3542	3603	2 12.0
84	3663	3724	3784	3845	3905	3965	4026	4086	4147	4207	3 18.0
85	4268	4328	4389	4449	4509	4570	4630	4691	4751	4812	4 24.0
86	4872	4933	4993	5053	5114	5174	5235	5295	5356	5416	5 30.0
87	5476	5537	5597	5658	5718	5779	5839	5899	5960	6020	6 36.0
88	6081	6141	6202	6262	6322	6383	6443	6504	6564	6624	7 42.0
89	6685	6745	6806	6866	6926	6987	7047	7108	7168	7229	8 48.0
7190	7289	7349	7410	7470	7531	7591	7651	7712	7772	7832	9 54.0
91	7893	7953	8014	8074	8134	8195	8255	8316	8376	8436	
92	8497	8557	8618	8678	8738	8799	8859	8919	8980	9040	
93	9101	9161	9221	9282	9342	9402	9463	9523	9584	9644	
94	9704	9765	9825	9885	9946	0006	0067	0127	0187	0248	
95	857 0308	0368	0429	0489	0549	0610	0670	0730	0791	0851	
96	0912	0972	1032	1093	1153	1213	1274	1334	1394	1455	
97	1515	1575	1636	1696	1756	1817	1877	1937	1998	2058	
98	2118	2179	2239	2299	2360	2420	2480	2541	2601	2661	
99	2722	2782	2842	2903	2963	3023	3084	3144	3204	3265	
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03	5134	5194	5255	5315	5375	5436	5496	5556	5616	5677	
04	5737	5797	5858	5918	5978	6038	6099	6159	6219	6280	
05	6340	6400	6460	6521	6581	6641	6701	6762	6822	6882	
06	6943	7003	7063	7123	7184	7244	7304	7364	7425	7485	
07	7545	7605	7666	7726	7786	7847	7907	7967	8027	8088	
08	8148	8208	8268	8329	8389	8449	8509	8570	8630	8690	
09	8750	8810	8871	8931	8991	9051	9112	9172	9232	9292	
7210	9353	9413	9473	9533	9594	9654	9714	9774	9835	9895	
11	9955	0015	0075	0136	0196	0256	0316	0377	0437	0497	61
12	858 0557	0617	0678	0738	0798	0858	0918	0979	1039	1099	1 6.1
13	1159	1220	1280	1340	1400	1460	1521	1581	1641	1701	2 12.2
14	1761	1822	1882	1942	2002	2062	2123	2183	2243	2303	3 18.3
15	2363	2424	2484	2544	2604	2664	2724	2785	2845	2905	4 24.4
16	2965	3025	3086	3146	3206	3266	3326	3387	3447	3507	5 30.5
17	3567	3627	3687	3748	3808	3868	3928	3988	4048	4109	6 36.6
18	4169	4229	4289	4349	4409	4470	4530	4590	4650	4710	7 42.7
19	4770	4831	4891	4951	5011	5071	5131	5192	5252	5312	8 48.8
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21	5973	6034	6094	6154	6214	6274	6334	6394	6455	6515	
22	6575	6635	6695	6755	6815	6876	6936	6996	7056	7116	
23	7176	7236	7296	7357	7417	7477	7537	7597	7657	7717	
24	7777	7837	7898	7958	8018	8078	8138	8198	8258	8318	
25	8379	8439	8499	8559	8619	8679	8739	8799	8859	8919	
26	8980	9040	9100	9160	9220	9280	9340	9400	9460	9520	
27	9581	9641	9701	9761	9821	9881	9941	0001	0061	0121	
28	859 0181	0242	0302	0362	0422	0482	0542	0602	0662	0722	
29	0782	0842	0902	0962	1023	1083	1143	1203	1263	1323	
7230	1383	1443	1503	1563	1623	1683	1743	1803	1863	1924	
31	1984	2044	2104	2164	2224	2284	2344	2404	2464	2524	60
32	2584	2644	2704	2764	2824	2884	2944	3005	3065	3125	1 6.0
33	3185	3245	3305	3365	3425	3485	3545	3605	3665	3725	2 12.0
34	3785	3845	3905	3965	4025	4085	4145	4205	4265	4325	3 18.0
35	4385	4445	4505	4565	4625	4685	4746	4806	4866	4926	4 24.0
36	4986	5046	5106	5166	5226	5286	5346	5406	5466	5526	5 30.0
37	5586	5646	5706	5766	5826	5886	5946	6006	6066	6126	6 36.0
38	6186	6246	6306	6366	6426	6486	6546	6606	6666	6726	7 42.0
39	6786	6846	6906	6966	7026	7086	7146	7206	7266	7326	8 48.0
7240	7386	7446	7506	7566	7626	7686	7746	7806	7866	7925	9 54.0
41	7985	8045	8105	8165	8225	8285	8345	8405	8465	8525	
42	8585	8645	8705	8765	8825	8885	8945	9005	9065	9125	
43	9185	9245	9305	9365	9425	9485	9545	9605	9665	9724	
44	9784	9844	9904	9964	0024	0084	0144	0204	0264	0324	
45	860 0384	0444	0504	0564	0624	0684	0744	0803	0863	0923	
46	0983	1043	1103	1163	1223	1283	1343	1403	1463	1523	
47	1583	1643	1702	1762	1822	1882	1942	2002	2062	2122	
48	2182	2242	2302	2362	2422	2481	2541	2601	2661	2721	
49	2781	2841	2901	2961	3021	3081	3140	3200	3260	3320	
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52	4578	4638	4698	4758	4817	4877	4937	4997	5057	5117	
53	5177	5237	5297	5356	5416	5476	5536	5596	5656	5716	
54	5776	5835	5895	5955	6015	6075	6135	6195	6254	6314	
55	6374	6434	6494	6554	6614	6673	6733	6793	6853	6913	
56	6973	7033	7092	7152	7212	7272	7332	7392	7452	7511	
57	7571	7631	7691	7751	7811	7870	7930	7990	8050	8110	
58	8170	8229	8289	8349	8409	8469	8529	8588	8648	8708	
59	8768	8828	8888	8947	9007	9067	9127	9187	9247	9306	
7260	9366	9426	9486	9546	9605	9665	9725	9785	9845	9905	
61	9964	0024	0084	0144	0204	0263	0323	0383	0443	0503	60
62	861 0562	0622	0682	0742	0802	0861	0921	0981	1041	1101	1 6.0
63	1160	1220	1280	1340	1400	1459	1519	1579	1639	1699	2 12.0
64	1758	1818	1878	1938	1997	2057	2117	2177	2237	2296	3 18.0
65	2356	2416	2476	2536	2595	2655	2715	2775	2834	2894	4 24.0
66	2954	3014	3073	3133	3193	3253	3313	3372	3432	3492	5 30.0
67	3552	3611	3671	3731	3791	3850	3910	3970	4030	4089	6 36.0
68	4149	4209	4269	4328	4388	4448	4508	4567	4627	4687	7 42.0
69	4747	4806	4866	4926	4986	5045	5105	5165	5225	5284	8 48.0
7270	5344	5404	5464	5523	5583	5643	5703	5762	5822	5882	9 54.0
71	5941	6001	6061	6121	6180	6240	6300	6360	6419	6479	
72	6539	6598	6658	6718	6778	6837	6897	6957	7016	7076	
73	7136	7196	7255	7315	7375	7434	7494	7554	7614	7673	
74	7733	7793	7852	7912	7972	8031	8091	8151	8211	8270	
75	8330	8390	8449	8509	8569	8628	8688	8748	8808	8867	
76	8927	8987	9046	9106	9165	9225	9285	9345	9404	9464	
77	9524	9583	9643	9703	9762	9822	9882	9941	0001	0061	
78	862 0121	0180	0240	0300	0359	0419	0479	0538	0598	0658	
79	0717	0777	0837	0896	0956	1016	1075	1135	1194	1254	
7280	1314	1373	1433	1493	1552	1612	1672	1731	1791	1851	
81	1910	1970	2030	2089	2149	2209	2268	2328	2387	2447	59
82	2507	2566	2626	2686	2745	2805	2865	2924	2984	3043	1 5.9
83	3103	3163	3222	3282	3342	3401	3461	3520	3580	3640	2 11.8
84	3699	3759	3819	3878	3938	3997	4057	4117	4176	4236	3 17.7
85	4296	4355	4415	4474	4534	4594	4653	4713	4772	4832	4 23.6
86	4892	4951	5011	5070	5130	5190	5249	5309	5368	5428	5 29.5
87	5488	5547	5607	5666	5726	5786	5845	5905	5964	6024	6 35.4
88	6084	6143	6203	6262	6322	6382	6441	6501	6560	6620	7 41.3
89	6680	6739	6799	6858	6918	6977	7037	7097	7156	7216	8 47.2
7290	7275	7335	7394	7454	7514	7573	7633	7692	7752	7811	9 53.1
91	7871	7931	7990	8050	8109	8169	8228	8288	8347	8407	
92	8467	8526	8586	8645	8705	8764	8824	8883	8943	9003	
93	9062	9122	9181	9241	9300	9360	9419	9479	9539	9598	
94	9658	9717	9777	9836	9896	9955	0015	0074	0134	0193	
95	863 0253	0312	0372	0432	0491	0551	0610	0670	0729	0789	
96	0848	0908	0967	1027	1086	1146	1205	1265	1324	1384	
97	1443	1503	1562	1622	1682	1741	1801	1860	1920	1979	
98	2039	2098	2158	2217	2277	2336	2396	2455	2515	2574	
99	2634	2693	2753	2812	2872	2931	2991	3050	3110	3169	
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02	4418	4478	4537	4597	4656	4716	4775	4835	4894	4954	
03	5013	5072	5132	5191	5251	5310	5370	5429	5489	5548	
04	5608	5667	5727	5786	5845	5905	5964	6024	6083	6143	
05	6202	6262	6321	6381	6440	6499	6559	6618	6678	6737	
06	6797	6856	6916	6975	7034	7094	7153	7213	7272	7332	
07	7391	7451	7510	7569	7629	7688	7748	7807	7867	7926	
08	7985	8045	8104	8164	8223	8283	8342	8401	8461	8520	
09	8580	8639	8698	8758	8817	8877	8936	8996	9055	9114	
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11	9768	9827	9887	9946	0005	0065	0124	0184	0243	0302	60
12	864 0362	0421	0481	0540	0599	0659	0718	0778	0837	0896	1 6.0
13	0956	1015	1075	1134	1193	1253	1312	1371	1431	1490	2 12.0
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19	4517	4577	4636	4695	4755	4814	4873	4933	4992	5051	8 48.0
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21	5704	5763	5823	5882	5941	6001	6060	6119	6179	6238	
22	6297	6357	6416	6475	6534	6594	6653	6712	6772	6831	
23	6890	6950	7009	7068	7128	7187	7246	7305	7365	7424	
24	7483	7543	7602	7661	7721	7780	7839	7898	7958	8017	
25	8076	8136	8195	8254	8313	8373	8432	8491	8551	8610	
26	8669	8728	8788	8847	8906	8966	9025	9084	9143	9203	
27	9262	9321	9380	9440	9499	9558	9618	9677	9736	9795	
28	9855	9914	9973	0032	0092	0151	0210	0269	0329	0388	
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31	1632	1691	1751	1810	1869	1928	1988	2047	2106	2165	59
32	2225	2284	2343	2402	2461	2521	2580	2639	2698	2758	1 5.9
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34	3409	3468	3527	3587	3646	3705	3764	3824	3883	3942	3 17.7
35	4001	4060	4120	4179	4238	4297	4356	4416	4475	4534	4 23.6
36	4593	4652	4712	4771	4830	4889	4948	5008	5067	5126	5 29.5
37	5185	5244	5304	5363	5422	5481	5540	5600	5659	5718	6 35.4
38	5777	5836	5895	5955	6014	6073	6132	6191	6251	6310	7 41.3
39	6369	6428	6487	6546	6606	6665	6724	6783	6842	6901	8 47.2
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41	7552	7611	7671	7730	7789	7848	7907	7966	8025	8085	
42	8144	8203	8262	8321	8380	8440	8499	8558	8617	8676	
43	8735	8794	8854	8913	8972	9031	9090	9149	9208	9268	
44	9327	9386	9445	9504	9563	9622	9681	9741	9800	9859	
45	9918	9977	0036	0095	0155	0214	0273	0332	0391	0450	
46	866 0509	0568	0627	0687	0746	0805	0864	0923	0982	1041	
47	1100	1160	1219	1278	1337	1396	1455	1514	1573	1632	
48	1691	1751	1810	1869	1928	1987	2046	2105	2164	2223	
49	2282	2342	2401	2460	2519	2578	2637	2696	2755	2814	
7350	2873	2932	2992	3051	3110	3169	3228	3287	3346	3405	
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52	4055	4114	4173	4232	4291	4350	4409	4468	4528	4587	
53	4646	4705	4764	4823	4882	4941	5000	5059	5118	5177	
54	5236	5295	5354	5413	5472	5532	5591	5650	5709	5768	
55	5827	5886	5945	6004	6063	6122	6181	6240	6299	6358	
56	6417	6476	6535	6594	6653	6712	6771	6830	6889	6949	
57	7008	7067	7126	7185	7244	7303	7362	7421	7480	7539	
58	7598	7657	7716	7775	7834	7893	7952	8011	8070	8129	
59	8188	8247	8306	8365	8424	8483	8542	8601	8660	8719	
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62	9958	0017	0076	0135	0194	0253	0312	0371	0430	0489	1 5.9
63	867 0548	0607	0666	0725	0784	0843	0902	0961	1020	1079	2 11.8
64	1138	1197	1256	1315	1374	1433	1492	1551	1610	1669	3 17.7
65	1728	1786	1845	1904	1963	2022	2081	2140	2199	2258	4 23.6
66	2317	2376	2435	2494	2553	2612	2671	2730	2789	2848	5 29.5
67	2907	2966	3025	3084	3142	3201	3260	3319	3378	3437	6 35.4
68	3496	3555	3614	3673	3732	3791	3850	3909	3968	4027	7 41.3
69	4086	4145	4203	4262	4321	4380	4439	4498	4557	4616	8 47.2
7370	4675	4734	4793	4852	4911	4970	5028	5087	5146	5205	9 53.1
71	5264	5323	5382	5441	5500	5559	5618	5677	5735	5794	
72	5853	5912	5971	6030	6089	6148	6207	6266	6325	6383	
73	6442	6501	6560	6619	6678	6737	6796	6855	6914	6972	
74	7031	7090	7149	7208	7267	7326	7385	7444	7502	7561	
75	7620	7679	7738	7797	7856	7915	7974	8032	8091	8150	
76	8209	8268	8327	8386	8445	8503	8562	8621	8680	8739	
77	8798	8857	8916	8974	9033	9092	9151	9210	9269	9328	
78	9387	9445	9504	9563	9622	9681	9740	9799	9857	9916	
79	9975	0034	0093	0152	0211	0269	0328	0387	0446	0505	
7380	868 0564	0622	0681	0740	0799	0858	0917	0976	1034	1093	
81	1152	1211	1270	1329	1387	1446	1505	1564	1623	1682	58
82	1740	1799	1858	1917	1976	2035	2093	2152	2211	2270	1 5.8
83	2329	2388	2446	2505	2564	2623	2682	2740	2799	2858	2 11.6
84	2917	2976	3035	3093	3152	3211	3270	3329	3387	3446	3 17.4
85	3505	3564	3623	3681	3740	3799	3858	3917	3975	4034	4 23.2
86	4093	4152	4211	4269	4328	4387	4446	4505	4563	4622	5 29.0
87	4681	4740	4799	4857	4916	4975	5034	5093	5151	5210	6 34.8
88	5269	5328	5386	5445	5504	5563	5622	5680	5739	5798	7 40.6
89	5857	5915	5974	6033	6092	6151	6209	6268	6327	6386	8 46.4
7390	6444	6503	6562	6621	6679	6738	6797	6856	6915	6973	9 52.2
91	7032	7091	7150	7208	7267	7326	7385	7443	7502	7561	
92	7620	7678	7737	7796	7855	7913	7972	8031	8090	8148	
93	8207	8266	8325	8383	8442	8501	8560	8618	8677	8736	
94	8794	8853	8912	8971	9029	9088	9147	9206	9264	9323	
95	9382	9441	9499	9558	9617	9675	9734	9793	9852	9910	
96	9969	0028	0086	0145	0204	0263	0321	0380	0439	0497	
97	869 0556	0615	0674	0732	0791	0850	0908	0967	1026	1085	
98	1143	1202	1261	1319	1378	1437	1495	1554	1613	1672	
99	1730	1789	1848	1906	1965	2024	2082	2141	2200	2259	
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01	2904	2963	3021	3080	3139	3197	3256	3315	3373	3432	
02	3491	3549	3608	3667	3725	3784	3843	3901	3960	4019	
03	4077	4136	4195	4253	4312	4371	4429	4488	4547	4605	
04	4664	4723	4781	4840	4899	4957	5016	5075	5133	5192	
05	5251	5309	5368	5427	5485	5544	5603	5661	5720	5778	
06	5837	5896	5954	6013	6072	6130	6189	6248	6306	6365	
07	6423	6482	6541	6599	6658	6717	6775	6834	6892	6951	
08	7010	7068	7127	7186	7244	7303	7361	7420	7479	7537	
09	7596	7655	7713	7772	7830	7889	7948	8006	8065	8123	
7410	8182	8241	8299	8358	8417	8475	8534	8592	8651	8710	
11	8768	8827	8885	8944	9003	9061	9120	9178	9237	9296	59
12	9354	9413	9471	9530	9588	9647	9706	9764	9823	9881	1 5.9
13	9940	9999	0057	0116	0174	0233	0292	0350	0409	0467	2 11.8
14	870 0526	0584	0643	0702	0760	0819	0877	0936	0994	1053	3 17.7
15	1112	1170	1229	1287	1346	1404	1463	1522	1580	1639	4 23.6
16	1697	1756	1814	1873	1931	1990	2049	2107	2166	2224	5 29.5
17	2283	2341	2400	2458	2517	2576	2634	2693	2751	2810	6 35.4
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19	3454	3512	3571	3629	3688	3746	3805	3863	3922	3981	8 47.2
7420	4039	4098	4156	4215	4273	4332	4390	4449	4507	4566	9 53.1
21	4624	4683	4741	4800	4858	4917	4975	5034	5092	5151	
22	5210	5268	5327	5385	5444	5502	5561	5619	5678	5736	
23	5795	5853	5912	5970	6029	6087	6146	6204	6263	6321	
24	6380	6438	6497	6555	6614	6672	6731	6789	6848	6906	
25	6965	7023	7082	7140	7199	7257	7316	7374	7432	7491	
26	7549	7608	7666	7725	7783	7842	7900	7959	8017	8076	
27	8134	8193	8251	8310	8368	8427	8485	8544	8602	8660	
28	8719	8777	8836	8894	8953	9011	9070	9128	9187	9245	
29	9304	9362	9421	9479	9537	9596	9654	9713	9771	9830	
7430	9888	9947	0005	0063	0122	0180	0239	0297	0356	0414	
31	871 0473	0531	0589	0648	0706	0765	0823	0882	0940	0999	58
32	1057	1115	1174	1232	1291	1349	1408	1466	1524	1583	1 5.8
33	1641	1700	1758	1817	1875	1933	1992	2050	2109	2167	2 11.6
34	2226	2284	2342	2401	2459	2518	2576	2634	2693	2751	3 17.4
35	2810	2868	2927	2985	3043	3102	3160	3219	3277	3335	4 23.2
36	3394	3452	3511	3569	3627	3686	3744	3803	3861	3919	5 29.0
37	3978	4036	4095	4153	4211	4270	4328	4387	4445	4503	6 34.8
38	4562	4620	4679	4737	4795	4854	4912	4970	5029	5087	7 40.6
39	5146	5204	5262	5321	5379	5437	5496	5554	5613	5671	8 46.4
7440	5729	5788	5846	5904	5963	6021	6080	6138	6196	6255	9 52.2
41	6313	6371	6430	6488	6546	6605	6663	6722	6780	6838	
42	6897	6955	7013	7072	7130	7188	7247	7305	7363	7422	
43	7480	7539	7597	7655	7714	7772	7830	7889	7947	8005	
44	8064	8122	8180	8239	8297	8355	8414	8472	8530	8589	
45	8647	8705	8764	8822	8880	8939	8997	9055	9114	9172	
46	9230	9288	9347	9405	9464	9522	9580	9639	9697	9755	
47	9814	9872	9930	9988	0047	0105	0163	0222	0280	0338	
48	872 0397	0455	0513	0572	0630	0688	0747	0805	0863	0921	
49	0980	1038	1096	1155	1213	1271	1330	1388	1446	1504	
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52	2728	2787	2845	2903	2962	3020	3078	3136	3195	3253	
53	3311	3369	3428	3486	3544	3603	3661	3719	3777	3836	
54	3894	3952	4010	4069	4127	4185	4243	4302	4360	4418	
55	4476	4535	4593	4651	4709	4768	4826	4884	4942	5001	
56	5059	5117	5175	5234	5292	5350	5408	5467	5525	5583	
57	5641	5700	5758	5816	5874	5933	5991	6049	6107	6166	
58	6224	6282	6340	6398	6457	6515	6573	6631	6690	6748	
59	6806	6864	6923	6981	7039	7097	7155	7214	7272	7330	
7460	7388	7446	7505	7563	7621	7679	7738	7796	7854	7912	
61	7970	8029	8087	8145	8203	8261	8320	8378	8436	8494	58
62	8552	8611	8669	8727	8785	8843	8902	8960	9018	9076	1 5.8
63	9134	9193	9251	9309	9367	9425	9484	9542	9600	9658	2 11.6
64	9716	9774	9833	9891	9949	$\bar{0}$007	$\bar{0}$065	$\bar{0}$124	$\bar{0}$182	$\bar{0}$240	3 17.4
65	873 0298	0356	0414	0473	0531	0589	0647	0705	0764	0822	4 23.2
66	0880	0938	0996	1054	1113	1171	1229	1287	1345	1403	5 29.0
67	1462	1520	1578	1636	1694	1752	1810	1869	1927	1985	6 34.8
68	2043	2101	2159	2218	2276	2334	2392	2450	2508	2566	7 40.6
69	2625	2683	2741	2799	2857	2915	2973	3032	3090	3148	8 46.4
7470	3206	3264	3322	3380	3439	3497	3555	3613	3671	3729	9 52.2
71	3787	3845	3904	3962	4020	4078	4136	4194	4252	4311	
72	4369	4427	4485	4543	4601	4659	4717	4775	4834	4892	
73	4950	5008	5066	5124	5182	5240	5298	5357	5415	5473	
74	5531	5589	5647	5705	5763	5821	5880	5938	5996	6054	
75	6112	6170	6228	6286	6344	6402	6461	6519	6577	6635	
76	6693	6751	6809	6867	6925	6983	7041	7100	7158	7216	
77	7274	7332	7390	7448	7506	7564	7622	7680	7738	7797	
78	7853	7913	7971	8029	8087	8145	8203	8261	8319	8377	
79	8435	8493	8551	8610	8668	8726	8784	8842	8900	8958	
7480	9016	9074	9132	9190	9248	9306	9364	9422	9480	9538	
81	9597	9655	9713	9771	9829	9887	9945	$\bar{0}$003	$\bar{0}$061	$\bar{0}$119	67
82	874 0177	0235	0293	0351	0409	0467	0525	0583	0641	0699	1 5.7
83	0757	0815	0874	0932	0990	1048	1106	1164	1222	1280	2 11.4
84	1338	1396	1454	1512	1570	1628	1686	1744	1802	1860	3 17.1
85	1918	1976	2034	2092	2150	2208	2266	2324	2382	2440	4 22.8
86	2498	2556	2614	2672	2730	2788	2846	2904	2962	3020	5 28.5
87	3078	3136	3194	3252	3310	3368	3426	3484	3542	3600	6 34.2
88	3658	3716	3774	3832	3890	3948	4006	4064	4122	4180	7 39.9
89	4238	4296	4354	4412	4470	4528	4586	4644	4702	4760	8 45.6
7490	4818	4876	4934	4992	5050	5108	5166	5224	5282	5340	9 51.3
91	5398	5456	5514	5572	5630	5688	5746	5804	5862	5920	
92	5978	6036	6094	6152	6210	6268	6325	6383	6441	6499	
93	6557	6615	6673	6731	6789	6847	6905	6963	7021	7079	
94	7137	7195	7253	7311	7369	7427	7485	7543	7600	7658	
95	7716	7774	7832	7890	7948	8006	8064	8122	8180	8238	
96	8296	8354	8412	8470	8528	8585	8643	8701	8759	8817	
97	8875	8933	8991	9049	9107	9165	9223	9281	9339	9396	
98	9454	9512	9570	9628	9686	9744	9802	9860	9918	9976	
99	875 0034	0091	0149	0207	0265	0323	0381	0439	0497	0555	
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02	1771	1828	1886	1944	2002	2060	2118	2176	2234	2292	
03	2349	2407	2465	2523	2581	2639	2697	2755	2813	2870	
04	2928	2986	3044	3102	3160	3218	3275	3333	3391	3449	
05	3507	3565	3623	3681	3738	3796	3854	3912	3970	4028	
06	4086	4143	4201	4259	4317	4375	4433	4491	4548	4606	
07	4664	4722	4780	4838	4896	4953	5011	5069	5127	5185	
08	5243	5300	5358	5416	5474	5532	5590	5648	5705	5763	
09	5821	5879	5937	5995	6052	6110	6168	6226	6284	6342	
7510	6399	6457	6515	6573	6631	6689	6746	6804	6862	6920	
11	6978	7035	7093	7151	7209	7267	7325	7382	7440	7498	58
12	7556	7614	7671	7729	7787	7845	7903	7960	8018	8076	1 5.8
13	8134	8192	8249	8307	8365	8423	8481	8539	8596	8654	2 11.6
14	8712	8770	8828	8885	8943	9001	9059	9116	9174	9232	3 17.4
15	9290	9348	9405	9463	9521	9579	9637	9694	9752	9810	4 23.2
16	9868	9925	9983	0041	0099	0157	0214	0272	0330	0388	5 29.0
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18	1023	1081	1139	1197	1254	1312	1370	1428	1485	1543	7 40.6
19	1601	1659	1716	1774	1832	1890	1947	2005	2063	2121	8 46.4
7520	2178	2236	2294	2352	2409	2467	2525	2583	2640	2698	9 52.2
21	2756	2814	2871	2929	2987	3045	3102	3160	3218	3276	
22	3333	3391	3449	3506	3564	3622	3680	3737	3795	3853	
23	3911	3968	4026	4084	4142	4199	4257	4315	4372	4430	
24	4488	4546	4603	4661	4719	4776	4834	4892	4950	5007	
25	5065	5123	5180	5238	5296	5354	5411	5469	5527	5584	
26	5642	5700	5758	5815	5873	5931	5988	6046	6104	6161	
27	6219	6277	6335	6392	6450	6508	6565	6623	6681	6738	
28	6796	6854	6911	6969	7027	7085	7142	7200	7258	7315	
29	7373	7431	7488	7546	7604	7661	7719	7777	7834	7892	
7530	7950	8007	8065	8123	8180	8238	8296	8353	8411	8469	
31	8526	8584	8642	8699	8757	8815	8872	8930	8988	9045	57
32	9103	9161	9218	9276	9334	9391	9449	9507	9564	9622	1 5.7
33	9680	9737	9795	9853	9910	9968	0026	0083	0141	0199	2 11.4
34	877 0256	0314	0371	0429	0487	0544	0602	0660	0717	0775	3 17.1
35	0833	0890	0948	1005	1063	1121	1178	1236	1294	1351	4 22.8
36	1409	1467	1524	1582	1639	1697	1755	1812	1870	1928	5 28.5
37	1985	2043	2100	2158	2216	2273	2331	2388	2446	2504	6 34.2
38	2561	2619	2677	2734	2792	2849	2907	2965	3022	3080	7 39.9
39	3137	3195	3253	3310	3368	3425	3483	3541	3598	3656	8 45.6
7540	3713	3771	3829	3886	3944	4001	4059	4117	4174	4232	9 51.3
41	4289	4347	4405	4462	4520	4577	4635	4693	4750	4808	
42	4865	4923	4980	5038	5096	5153	5211	5268	5326	5384	
43	5441	5499	5556	5614	5671	5729	5787	5844	5902	5959	
44	6017	6074	6132	6189	6247	6305	6362	6420	6477	6535	
45	6592	6650	6708	6765	6823	6880	6938	6995	7053	7110	
46	7168	7226	7283	7341	7398	7456	7513	7571	7628	7686	
47	7743	7801	7859	7916	7974	8031	8089	8146	8204	8261	
48	8319	8376	8434	8492	8549	8607	8664	8722	8779	8837	
49	8894	8952	9009	9067	9124	9182	9239	9297	9354	9412	
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52	0620	0677	0735	0792	0850	0907	0965	1022	1080	1137	
53	1195	1252	1310	1367	1425	1482	1540	1597	1655	1712	
54	1770	1827	1885	1942	2000	2057	2115	2172	2230	2287	
55	2345	2402	2460	2517	2575	2632	2690	2747	2805	2862	
56	2919	2977	3034	3092	3149	3207	3264	3322	3379	3437	
57	3494	3552	3609	3667	3724	3782	3839	3896	3954	4011	
58	4069	4126	4184	4241	4299	4356	4414	4471	4529	4586	
59	4643	4701	4758	4816	4873	4931	4988	5046	5103	5161	
7560	5218	5275	5333	5390	5448	5505	5563	5620	5678	5735	
61	5792	5850	5907	5965	6022	6080	6137	6194	6252	6309	58
62	6367	6424	6482	6539	6596	6654	6711	6769	6826	6884	1 5.8
63	6941	6998	7056	7113	7171	7228	7286	7343	7400	7458	2 11.6
64	7515	7573	7630	7687	7745	7802	7860	7917	7975	8032	3 17.4
65	8089	8147	8204	8262	8319	8376	8434	8491	8549	8606	4 23.2
66	8663	8721	8778	8836	8893	8950	9008	9065	9123	9180	5 29.0
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68	9811	9869	9926	9983	0041	0098	0156	0213	0270	0328	7 40.6
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71	1532	1590	1647	1705	1762	1819	1877	1934	1991	2049	
72	2106	2163	2221	2278	2335	2393	2450	2508	2565	2622	
73	2680	2737	2794	2852	2909	2966	3024	3081	3138	3196	
74	3253	3310	3368	3425	3482	3540	3597	3654	3712	3769	
75	3826	3884	3941	3998	4056	4113	4170	4228	4285	4342	
76	4400	4457	4514	4572	4629	4686	4744	4801	4858	4916	
77	4973	5030	5088	5145	5202	5259	5317	5374	5431	5489	
78	5546	5603	5661	5718	5775	5833	5890	5947	6004	6062	
79	6119	6176	6234	6291	6348	6406	6463	6520	6577	6635	
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81	7265	7322	7380	7437	7494	7551	7609	7666	7723	7781	57
82	7838	7895	7952	8010	8067	8124	8181	8239	8296	8353	1 5.7
83	8411	8468	8525	8582	8640	8697	8754	8811	8869	8926	2 11.4
84	8983	9041	9098	9155	9212	9270	9327	9384	9441	9499	3 17.1
85	9556	9613	9670	9728	9785	9842	9899	9957	0014	0071	4 22.8
86	880 0128	0186	0243	0300	0357	0415	0472	0529	0586	0644	5 28.5
87	0701	0758	0815	0873	0930	0987	1044	1102	1159	1216	6 34.2
88	1273	1330	1388	1445	1502	1559	1617	1674	1731	1788	7 39.9
89	1846	1903	1960	2017	2074	2132	2189	2246	2303	2361	8 45.6
7590	2418	2475	2532	2589	2647	2704	2761	2818	2875	2933	9 51.3
91	2990	3047	3104	3162	3219	3276	3333	3390	3448	3505	
92	3562	3619	3676	3734	3791	3848	3905	3962	4020	4077	
93	4134	4191	4248	4306	4363	4420	4477	4534	4592	4649	
94	4706	4763	4820	4877	4935	4992	5049	5106	5163	5221	
95	5278	5335	5392	5449	5507	5564	5621	5678	5735	5792	
96	5850	5907	5964	6021	6078	6135	6193	6250	6307	6364	
97	6421	6478	6536	6593	6650	6707	6764	6821	6879	6936	
98	6993	7050	7107	7164	7222	7279	7336	7393	7450	7507	
99	7564	7622	7679	7736	7793	7850	7907	7964	8022	8079	
7600	8136	8193	8250	8307	8364	8422	8479	8536	8593	8650	
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01	8707	8764	8822	8879	8936	8993	9050	9107	9164	9222	
02	9279	9336	9393	9450	9507	9564	9621	9679	9736	9793	
03	9850	9907	9964	0021	0078	0136	0193	0250	0307	0364	
04	881 0421	0478	0535	0592	0650	0707	0764	0821	0878	0935	
05	0992	1049	1106	1163	1221	1278	1335	1392	1449	1506	
06	1563	1620	1677	1735	1792	1849	1906	1963	2020	2077	
07	2134	2191	2248	2305	2363	2420	2477	2534	2591	2648	
08	2705	2762	2819	2876	2933	2990	3048	3105	3162	3219	
09	3276	3333	3390	3447	3504	3561	3618	3675	3732	3789	
7610	3847	3904	3961	4018	4075	4132	4189	4246	4303	4360	
11	4417	4474	4531	4588	4645	4703	4760	4817	4874	4931	
12	4988	5045	5102	5159	5216	5273	5330	5387	5444	5501	58
13	5558	5615	5672	5729	5786	5844	5901	5958	6015	6072	1 5.8
14	6129	6186	6243	6300	6357	6414	6471	6528	6585	6642	2 11.6
15	6699	6756	6813	6870	6927	6984	7041	7098	7155	7212	3 17.4
16	7269	7326	7383	7440	7497	7554	7611	7669	7726	7783	4 23.2
17	7840	7897	7954	8011	8068	8125	8182	8239	8296	8353	5 29.0
18	8410	8467	8524	8581	8638	8695	8752	8809	8866	8923	6 34.8
19	8980	9037	9094	9151	9208	9265	9322	9379	9436	9493	7 40.6
7620	9550	9607	9664	9721	9778	9835	9892	9949	0006	0063	8 46.4
21	882 0120	0177	0234	0291	0348	0405	0462	0519	0575	0632	9 52.2
22	0689	0746	0803	0860	0917	0974	1031	1088	1145	1202	
23	1259	1316	1373	1430	1487	1544	1601	1658	1715	1772	
24	1829	1886	1943	2000	2057	2114	2171	2228	2285	2342	
25	2398	2455	2512	2569	2626	2683	2740	2797	2854	2911	
26	2968	3025	3082	3139	3196	3253	3310	3367	3424	3481	
27	3537	3594	3651	3708	3765	3822	3879	3936	3993	4050	
28	4107	4164	4221	4278	4335	4392	4448	4505	4562	4619	
29	4676	4733	4790	4847	4904	4961	5018	5075	5132	5188	
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31	5815	5871	5928	5985	6042	6099	6156	6213	6270	6327	
32	6384	6441	6497	6554	6611	6668	6725	6782	6839	6896	57
33	6953	7010	7066	7123	7180	7237	7294	7351	7408	7465	1 5.7
34	7522	7578	7635	7692	7749	7806	7863	7920	7977	8034	2 11.4
35	8090	8147	8204	8261	8318	8375	8432	8489	8545	8602	3 17.1
36	8659	8716	8773	8830	8887	8944	9000	9057	9114	9171	4 22.8
37	9228	9285	9342	9399	9455	9512	9569	9626	9683	9740	5 28.5
38	9797	9853	9910	9967	0024	0081	0138	0195	0251	0308	6 34.2
39	883 0365	0422	0479	0536	0593	0649	0706	0763	0820	0877	7 39.9
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41	1502	1559	1616	1673	1729	1786	1843	1900	1957	2014	9 51.3
42	2070	2127	2184	2241	2298	2354	2411	2468	2525	2582	
43	2639	2695	2752	2809	2866	2923	2980	3036	3093	3150	
44	3207	3264	3320	3377	3434	3491	3548	3604	3661	3718	
45	3775	3832	3889	3945	4002	4059	4116	4173	4229	4286	
46	4343	4400	4457	4513	4570	4627	4684	4741	4797	4854	
47	4911	4968	5024	5081	5138	5195	5252	5308	5365	5422	
48	5479	5536	5592	5649	5706	5763	5819	5876	5933	5990	
49	6047	6103	6160	6217	6274	6330	6387	6444	6501	6558	
7650	6614	6671	6728	6785	6841	6898	6955	7012	7068	7125	
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7650	883 6614	6671	6728	6785	6841	6898	6955	7012	7068	7125	
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52	7750	7806	7863	7920	7977	8033	8090	8147	8204	8260	
53	8317	8374	8431	8487	8544	8601	8658	8714	8771	8828	
54	8885	8941	8998	9055	9112	9168	9225	9282	9338	9395	
55	9452	9509	9565	9622	9679	9736	9792	9849	9906	9963	
56	884 0019	0076	0133	0189	0246	0303	0360	0416	0473	0530	
57	0586	0643	0700	0757	0813	0870	0927	0983	1040	1097	
58	1154	1210	1267	1324	1380	1437	1494	1551	1607	1664	
59	1721	1777	1834	1891	1948	2004	2061	2118	2174	2231	
7660	2288	2344	2401	2458	2514	2571	2628	2685	2741	2798	
61	2855	2911	2968	3025	3081	3138	3195	3251	3308	3365	57
62	3421	3478	3535	3592	3648	3705	3762	3818	3875	3932	1 5.7
63	3988	4045	4102	4158	4215	4272	4328	4385	4442	4498	2 11.4
64	4555	4612	4668	4725	4782	4838	4895	4952	5008	5065	3 17.1
65	5122	5178	5235	5292	5348	5405	5462	5518	5575	5631	4 22.8
66	5688	5745	5801	5858	5915	5971	6028	6085	6141	6198	5 28.5
67	6255	6311	6368	6425	6481	6538	6594	6651	6708	6764	6 34.2
68	6821	6878	6934	6991	7048	7104	7161	7217	7274	7331	7 39.9
69	7387	7444	7501	7557	7614	7671	7727	7784	7840	7897	8 45.6
7670	7954	8010	8067	8124	8180	8237	8293	8350	8407	8463	9 51.3
71	8520	8576	8633	8690	8746	8803	8860	8916	8973	9029	
72	9086	9143	9199	9256	9312	9369	9426	9482	9539	9595	
73	9652	9709	9765	9822	9878	9935	9992	$\bar{0}048$	$\bar{0}105$	$\bar{0}161$	
74	885 0218	0275	0331	0388	0444	0501	0557	0614	0671	0727	
75	0784	0840	0897	0954	1010	1067	1123	1180	1237	1293	
76	1350	1406	1463	1519	1576	1633	1689	1746	1802	1859	
77	1915	1972	2029	2085	2142	2198	2255	2311	2368	2425	
78	2481	2538	2594	2651	2707	2764	2820	2877	2934	2990	
79	3047	3103	3160	3216	3273	3329	3386	3443	3499	3556	
7680	3612	3669	3725	3782	3838	3895	3951	4008	4065	4121	
81	4178	4234	4291	4347	4404	4460	4517	4573	4630	4686	56
82	4743	4800	4856	4913	4969	5026	5082	5139	5195	5252	1 5.6
83	5308	5365	5421	5478	5534	5591	5647	5704	5761	5817	2 11.2
84	5874	5930	5987	6043	6100	6156	6213	6269	6326	6382	3 16.8
85	6439	6495	6552	6608	6665	6721	6778	6834	6891	6947	4 22.4
86	7004	7060	7117	7173	7230	7286	7343	7399	7456	7512	5 28.0
87	7569	7625	7682	7738	7795	7851	7908	7964	8021	8077	6 33.6
88	8134	8190	8247	8303	8360	8416	8473	8529	8586	8642	7 39.2
89	8699	8755	8812	8868	8925	8981	9037	9094	9150	9207	8 44.8
7690	9263	9320	9376	9433	9489	9546	9602	9659	9715	9772	9 50.4
91	9828	9885	9941	9998	$\bar{0}054$	$\bar{0}110$	$\bar{0}167$	$\bar{0}223$	$\bar{0}280$	$\bar{0}336$	
92	886 0393	0449	0506	0562	0619	0675	0732	0788	0844	0901	
93	0957	1014	1070	1127	1183	1240	1296	1352	1409	1465	
94	1522	1578	1635	1691	1748	1804	1860	1917	1973	2030	
95	2086	2143	2199	2256	2312	2368	2425	2481	2538	2594	
96	2651	2707	2763	2820	2876	2933	2989	3046	3102	3158	
97	3215	3271	3328	3384	3441	3497	3553	3610	3666	3723	
98	3779	3835	3892	3948	4005	4061	4118	4174	4230	4287	
99	4343	4400	4456	4512	4569	4625	4682	4738	4794	4851	
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02	6035	6092	6148	6204	6261	6317	6373	6430	6486	6543	
03	6599	6655	6712	6768	6824	6881	6937	6994	7050	7106	
04	7163	7219	7275	7332	7388	7445	7501	7557	7614	7670	
05	7726	7783	7839	7896	7952	8008	8065	8121	8177	8234	
06	8290	8346	8403	8459	8515	8572	8628	8685	8741	8797	
07	8854	8910	8966	9023	9079	9135	9192	9248	9304	9361	
08	9417	9473	9530	9586	9642	9699	9755	9811	9868	9924	
09	9980	0037	0093	0149	0206	0262	0318	0375	0431	0487	
7710	887 0544	0600	0656	0713	0769	0825	0882	0938	0994	1051	
11	1107	1163	1220	1276	1332	1389	1445	1501	1558	1614	57
12	1670	1727	1783	1839	1895	1952	2008	2064	2121	2177	1 5.7
13	2233	2290	2346	2402	2459	2515	2571	2627	2684	2740	2 11.4
14	2796	2853	2909	2965	3022	3078	3134	3190	3247	3303	3 17.1
15	3359	3416	3472	3528	3584	3641	3697	3753	3810	3866	4 22.8
16	3922	3978	4035	4091	4147	4204	4260	4316	4372	4429	5 28.5
17	4485	4541	4598	4654	4710	4766	4823	4879	4935	4991	6 34.2
18	5048	5104	5160	5217	5273	5329	5385	5442	5498	5554	7 39.9
19	5610	5667	5723	5779	5835	5892	5948	6004	6060	6117	8 45.6
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21	6736	6792	6848	6904	6961	7017	7073	7129	7185	7242	
22	7298	7354	7410	7467	7523	7579	7635	7692	7748	7804	
23	7860	7917	7973	8029	8085	8142	8198	8254	8310	8366	
24	8423	8479	8535	8591	8648	8704	8760	8816	8872	8929	
25	8985	9041	9097	9154	9210	9266	9322	9378	9435	9491	
26	9547	9603	9659	9716	9772	9828	9884	9941	9997	0053	
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28	0671	0727	0784	0840	0896	0952	1008	1064	1121	1177	
29	1233	1289	1345	1402	1458	1514	1570	1626	1683	1739	
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31	2357	2413	2469	2525	2581	2638	2694	2750	2806	2862	56
32	2918	2975	3031	3087	3143	3199	3255	3312	3368	3424	1 5.6
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34	4042	4098	4154	4210	4266	4322	4379	4435	4491	4547	3 16.8
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36	5165	5221	5277	5333	5389	5445	5501	5558	5614	5670	5 28.0
37	5726	5782	5838	5894	5950	6007	6063	6119	6175	6231	6 33.6
38	6287	6343	6400	6456	6512	6568	6624	6680	6736	6792	7 39.2
39	6848	6905	6961	7017	7073	7129	7185	7241	7297	7353	8 44.8
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41	7971	8027	8083	8139	8195	8251	8307	8363	8419	8476	
42	8532	8588	8644	8700	8756	8812	8868	8924	8980	9037	
43	9093	9149	9205	9261	9317	9373	9429	9485	9541	9597	
44	9653	9710	9766	9822	9878	9934	9990	0046	0102	0158	
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46	0775	0831	0887	0943	0999	1055	1111	1167	1223	1279	
47	1336	1392	1448	1504	1560	1616	1672	1728	1784	1840	
48	1896	1952	2008	2064	2120	2176	2232	2288	2345	2401	
49	2457	2513	2569	2625	2681	2737	2793	2849	2905	2961	
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53	4698	4754	4810	4866	4922	4978	5034	5090	5146	5202	
54	5258	5314	5370	5426	5482	5538	5594	5650	5706	5762	
55	5818	5874	5930	5986	6042	6098	6154	6210	6266	6322	
56	6378	6434	6490	6546	6602	6658	6714	6770	6826	6882	
57	6938	6994	7050	7106	7162	7218	7274	7330	7386	7442	
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59	8058	8113	8169	8225	8281	8337	8393	8449	8505	8561	
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61	9177	9233	9289	9345	9401	9457	9513	9569	9624	9680	56
62	9736	9792	9848	9904	9960	0016	0072	0128	0184	0240	1 5.6
63	890 0296	0352	0408	0464	0520	0576	0632	0687	0743	0799	2 11.2
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65	1415	1471	1526	1582	1638	1694	1750	1806	1862	1918	4 22.4
66	1974	2030	2086	2142	2198	2253	2309	2365	2421	2477	5 28.0
67	2533	2589	2645	2701	2757	2813	2869	2924	2980	3036	6 33.6
68	3092	3148	3204	3260	3316	3372	3428	3484	3539	3595	7 39.2
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71	4769	4825	4881	4937	4993	5049	5104	5160	5216	5272	
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73	5887	5943	5998	6054	6110	6166	6222	6278	6334	6389	
74	6445	6501	6557	6613	6669	6725	6781	6836	6892	6948	
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76	7563	7618	7674	7730	7786	7842	7898	7953	8009	8065	
77	8121	8177	8233	8289	8344	8400	8456	8512	8568	8624	
78	8679	8735	8791	8847	8903	8959	9014	9070	9126	9182	
79	9238	9294	9349	9405	9461	9517	9573	9629	9684	9740	
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83	1470	1526	1582	1638	1694	1749	1805	1861	1917	1972	2 11.0
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85	2586	2642	2698	2754	2809	2865	2921	2977	3032	3088	4 22.0
86	3144	3200	3256	3311	3367	3423	3479	3534	3590	3646	5 27.5
87	3702	3758	3813	3869	3925	3981	4036	4092	4148	4204	6 33.0
88	4259	4315	4371	4427	4482	4538	4594	4650	4706	4761	7 38.5
89	4817	4873	4929	4984	5040	5096	5152	5207	5263	5319	8 44.0
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92	6489	6545	6601	6657	6712	6768	6824	6880	6935	6991	
93	7047	7102	7158	7214	7270	7325	7381	7437	7493	7548	
94	7604	7660	7715	7771	7827	7883	7938	7994	8050	8105	
95	8161	8217	8273	8328	8384	8440	8495	8551	8607	8663	
96	8718	8774	8830	8885	8941	8997	9053	9108	9164	9220	
97	9275	9331	9387	9442	9498	9554	9610	9665	9721	9777	
98	9832	9888	9944	9999	0055	0111	0166	0222	0278	0334	
99	892 0389	0445	0501	0556	0612	0668	0723	0779	0835	0890	
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02	2059	2115	2171	2226	2282	2338	2393	2449	2505	2560	
03	2616	2672	2727	2783	2839	2894	2950	3006	3061	3117	
04	3173	3228	3284	3340	3395	3451	3506	3562	3618	3673	
05	3729	3785	3840	3896	3952	4007	4063	4119	4174	4230	
06	4285	4341	4397	4452	4508	4564	4619	4675	4731	4786	
07	4842	4897	4953	5009	5064	5120	5176	5231	5287	5342	
08	5398	5454	5509	5565	5621	5676	5732	5787	5843	5899	
09	5954	6010	6065	6121	6177	6232	6288	6344	6399	6455	
7810	6510	6566	6622	6677	6733	6788	6844	6900	6955	7011	
11	7066	7122	7178	7233	7289	7344	7400	7456	7511	7567	56
2	7622	7678	7734	7789	7845	7900	7956	8011	8067	8123	1 5.6
3	8178	8234	8289	8345	8401	8456	8512	8567	8623	8678	2 11.2
14	8734	8790	8845	8901	8956	9012	9068	9123	9179	9234	3 16.8
15	9290	9345	9401	9457	9512	9568	9623	9679	9734	9790	4 22.4
16	9846	9901	9957	0012	0068	0123	0179	0234	0290	0346	5 28.0
17	893 0401	0457	0512	0568	0623	0679	0734	0790	0846	0901	6 33.6
18	0957	1012	1068	1123	1179	1234	1290	1345	1401	1457	7 39.2
19	1512	1568	1623	1679	1734	1790	1845	1901	1956	2012	8 44.8
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21	2623	2678	2734	2789	2845	2900	2956	3012	3067	3123	
22	3178	3234	3289	3345	3400	3456	3511	3567	3622	3678	
23	3733	3789	3844	3900	3955	4011	4066	4122	4177	4233	
24	4288	4344	4399	4455	4510	4566	4621	4677	4732	4788	
25	4843	4899	4954	5010	5065	5121	5176	5232	5287	5343	
26	5398	5454	5509	5565	5620	5676	5731	5787	5842	5898	
27	5953	6009	6064	6120	6175	6231	6286	6342	6397	6453	
28	6508	6564	6619	6675	6730	6786	6841	6897	6952	7007	
29	7063	7118	7174	7229	7285	7340	7396	7451	7507	7562	
7830	7618	7673	7729	7784	7839	7895	7950	8006	8061	8117	
31	8172	8228	8283	8339	8394	8450	8505	8560	8616	8671	55
32	8727	8782	8838	8893	8949	9004	9059	9115	9170	9226	1 5.5
33	9281	9337	9392	9448	9503	9558	9614	9669	9725	9780	2 11.0
34	9836	9891	9947	0002	0057	0113	0168	0224	0279	0335	3 16.5
35	894 0390	0445	0501	0556	0612	0667	0723	0778	0833	0889	4 22.0
36	0944	1000	1055	1111	1166	1221	1277	1332	1388	1443	5 27.5
37	1498	1554	1609	1665	1720	1776	1831	1886	1942	1997	6 33.0
38	2053	2108	2163	2219	2274	2330	2385	2440	2496	2551	7 38.5
39	2607	2662	2717	2773	2828	2884	2939	2994	3050	3105	8 44.0
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41	3715	3770	3825	3881	3936	3991	4047	4102	4158	4213	
42	4268	4324	4379	4435	4490	4545	4601	4656	4711	4767	
43	4822	4878	4933	4988	5044	5099	5154	5210	5265	5320	
44	5376	5431	5487	5542	5597	5653	5708	5763	5819	5874	
45	5929	5985	6040	6096	6151	6206	6262	6317	6372	6428	
46	6483	6538	6594	6649	6704	6760	6815	6870	6926	6981	
47	7037	7092	7147	7203	7258	7313	7369	7424	7479	7535	
48	7590	7645	7701	7756	7811	7867	7922	7977	8033	8088	
49	8143	8199	8254	8309	8365	8420	8475	8531	8586	8641	
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51	9250	9305	9360	9416	9471	9526	9582	9637	9692	9748	
52	9803	9858	9914	9969	$\bar{0}024$	$\bar{0}079$	$\bar{0}135$	$\bar{0}190$	$\bar{0}245$	$\bar{0}301$	
53	895 0356	0411	0467	0522	0577	0632	0688	0743	0798	0854	
54	0909	0964	1020	1075	1130	1185	1241	1296	1351	1407	
55	1462	1517	1572	1628	1683	1738	1794	1849	1904	1959	
56	2015	2070	2125	2181	2236	2291	2346	2402	2457	2512	
57	2568	2623	2678	2733	2789	2844	2899	2954	3010	3065	
58	3120	3176	3231	3286	3341	3397	3452	3507	3562	3618	
59	3673	3728	3783	3839	3894	3949	4004	4060	4115	4170	
7860	4225	4281	4336	4391	4446	4502	4557	4612	4667	4723	
61	4778	4833	4888	4944	4999	5054	5109	5165	5220	5275	56
62	5330	5386	5441	5496	5551	5607	5662	5717	5772	5828	1 5.6
63	5883	5938	5993	6048	6104	6159	6214	6269	6325	6380	2 11.2
64	6435	6490	6545	6601	6656	6711	6766	6822	6877	6932	3 16.8
65	6987	7042	7098	7153	7208	7263	7319	7374	7429	7484	4 22.4
66	7539	7595	7650	7705	7760	7815	7871	7926	7981	8036	5 28.0
67	8092	8147	8202	8257	8312	8368	8423	8478	8533	8588	6 33.6
68	8644	8699	8754	8809	8864	8919	8975	9030	9085	9140	7 39.2
69	9195	9251	9306	9361	9416	9471	9527	9582	9637	9692	8 44.8
											9 50.4
7870	9747	9803	9858	9913	9968	$\bar{0}023$	$\bar{0}078$	$\bar{0}134$	$\bar{0}189$	$\bar{0}244$	
71	896 0299	0354	0409	0465	0520	0575	0630	0685	0741	0796	
72	0851	0906	0961	1016	1072	1127	1182	1237	1292	1347	
73	1403	1458	1513	1568	1623	1678	1733	1789	1844	1899	
74	1954	2009	2064	2120	2175	2230	2285	2340	2395	2450	
75	2506	2561	2616	2671	2726	2781	2837	2892	2947	3002	
76	3057	3112	3167	3222	3278	3333	3388	3443	3498	3553	
77	3608	3664	3719	3774	3829	3884	3939	3994	4050	4105	
78	4160	4215	4270	4325	4380	4435	4491	4546	4601	4656	
79	4711	4766	4821	4876	4931	4987	5042	5097	5152	5207	
7880	5262	5317	5372	5428	5483	5538	5593	5648	5703	5758	
81	5813	5868	5923	5979	6034	6089	6144	6199	6254	6309	55
82	6364	6419	6475	6530	6585	6640	6695	6750	6805	6860	1 5.5
83	6915	6970	7025	7081	7136	7191	7246	7301	7356	7411	2 11.0
84	7466	7521	7576	7631	7686	7742	7797	7852	7907	7962	3 16.5
85	8017	8072	8127	8182	8237	8292	8347	8403	8458	8513	4 22.0
86	8568	8623	8678	8733	8788	8843	8898	8953	9008	9063	5 27.5
87	9118	9173	9229	9284	9339	9394	9449	9504	9559	9614	6 33.0
88	9669	9724	9779	9834	9889	9944	9999	$\bar{0}054$	$\bar{0}109$	$\bar{0}163$	7 38.5
89	897 0220	0275	0330	0385	0440	0495	0550	0605	0660	0715	8 44.0
											9 49.5
7890	0770	0825	0880	0935	0990	1045	1100	1155	1210	1265	
91	1320	1375	1431	1486	1541	1596	1651	1706	1761	1816	
92	1871	1926	1981	2036	2091	2146	2201	2256	2311	2366	
93	2421	2476	2531	2586	2641	2696	2751	2806	2861	2916	
94	2971	3026	3081	3136	3191	3246	3301	3356	3411	3466	
95	3521	3576	3631	3686	3741	3796	3851	3906	3961	4016	
96	4071	4126	4181	4236	4291	4346	4401	4456	4511	4566	
97	4621	4676	4731	4786	4841	4896	4951	5006	5061	5116	
98	5171	5226	5281	5336	5391	5446	5501	5556	5611	5666	
99	5721	5776	5831	5886	5941	5996	6051	6106	6161	6216	
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02	7370	7425	7480	7535	7590	7645	7700	7755	7810	7865	
03	7920	7975	8030	8085	8140	8195	8250	8304	8359	8414	
04	8469	8524	8579	8634	8689	8744	8799	8854	8909	8964	
05	9019	9074	9129	9184	9238	9293	9348	9403	9458	9513	
06	9568	9623	9678	9733	9788	9843	9898	9953	0008	0062	
07	898 0117	0172	0227	0282	0337	0392	0447	0502	0557	0612	
08	0667	0722	0776	0831	0886	0941	0996	1051	1106	1161	
09	1216	1271	1326	1380	1435	1490	1545	1600	1655	1710	
7910	1765	1820	1875	1930	1984	2039	2094	2149	2204	2259	
11	2314	2369	2424	2479	2533	2588	2643	2698	2753	2808	55
12	2863	2918	2973	3027	3082	3137	3192	3247	3302	3357	1 5.5
13	3412	3467	3521	3576	3631	3686	3741	3796	3851	3906	2 11.0
14	3960	4015	4070	4125	4180	4235	4290	4345	4399	4454	3 16.5
15	4509	4564	4619	4674	4729	4784	4838	4893	4948	5003	4 22.0
16	5058	5113	5168	5222	5277	5332	5387	5442	5497	5552	5 27.5
17	5606	5661	5716	5771	5826	5881	5936	5990	6045	6100	6 33.0
18	6155	6210	6265	6320	6374	6429	6484	6539	6594	6649	7 38.5
19	6703	6758	6813	6868	6923	6978	7032	7087	7142	7197	8 44.0
7920	7252	7307	7361	7416	7471	7526	7581	7636	7690	7745	9 49.5
21	7800	7855	7910	7965	8019	8074	8129	8184	8239	8294	
22	8348	8403	8458	8513	8568	8622	8677	8732	8787	8842	
23	8897	8951	9006	9061	9116	9171	9225	9280	9335	9390	
24	9445	9499	9554	9609	9664	9719	9774	9828	9883	9938	
25	9993	0048	0102	0157	0212	0267	0321	0376	0431	0486	
26	899 0541	0595	0650	0705	0760	0815	0869	0924	0979	1034	
27	1089	1143	1198	1253	1308	1363	1417	1472	1527	1582	
28	1636	1691	1746	1801	1856	1910	1965	2020	2075	2129	
29	2184	2239	2294	2348	2403	2458	2513	2568	2622	2677	
7930	2732	2787	2841	2896	2951	3006	3060	3115	3170	3225	
31	3279	3334	3389	3444	3499	3553	3608	3663	3718	3772	54
32	3827	3882	3937	3991	4046	4101	4156	4210	4265	4320	1 5.4
33	4375	4429	4484	4539	4594	4648	4703	4758	4812	4867	2 10.8
34	4922	4977	5031	5086	5141	5196	5250	5305	5360	5415	3 16.2
35	5469	5524	5579	5634	5688	5743	5798	5852	5907	5962	4 21.6
36	6017	6071	6126	6181	6235	6290	6345	6400	6454	6509	5 27.0
37	6564	6619	6673	6728	6783	6837	6892	6947	7002	7056	6 32.4
38	7111	7166	7220	7275	7330	7384	7439	7494	7549	7603	7 37.8
39	7658	7713	7767	7822	7877	7932	7986	8041	8096	8150	8 43.2
7940	8205	8260	8314	8369	8424	8479	8533	8588	8643	8697	9 48.6
41	8752	8807	8861	8916	8971	9025	9080	9135	9189	9244	
42	9299	9354	9408	9463	9518	9572	9627	9682	9736	9791	
43	9846	9900	9955	0010	0064	0119	0174	0228	0283	0338	
44	900 0392	0447	0502	0556	0611	0666	0720	0775	0830	0884	
45	0939	0994	1048	1103	1158	1212	1267	1322	1376	1431	
46	1486	1540	1595	1650	1704	1759	1814	1868	1923	1977	
47	2032	2087	2141	2196	2251	2305	2360	2415	2469	2524	
48	2579	2633	2688	2743	2797	2852	2906	2961	3016	3070	
49	3125	3180	3234	3289	3344	3398	3453	3507	3562	3617	
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7950	900 3671	3726	3781	3835	3890	3944	3999	4054	4108	4163	
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52	4764	4818	4873	4928	4982	5037	5091	5146	5201	5255	
53	5310	5364	5419	5474	5528	5583	5637	5692	5747	5801	
54	5856	5910	5965	6020	6074	6129	6183	6238	6293	6347	
55	6402	6456	6511	6566	6620	6675	6729	6784	6839	6893	
56	6948	7002	7057	7112	7166	7221	7275	7330	7384	7439	
57	7494	7548	7603	7657	7712	7766	7821	7876	7930	7985	
58	8039	8094	8148	8203	8258	8312	8367	8421	8476	8530	
59	8585	8640	8694	8749	8803	8858	8912	8967	9022	9076	
7960	9131	9185	9240	9294	9349	9403	9458	9513	9567	9622	
61	9676	9731	9785	9840	9894	9949	$\bar{0}004$	$\bar{0}058$	$\bar{0}113$	$\bar{0}167$	55
62	901 0222	0276	0331	0385	0440	0494	0549	0604	0658	0713	1 5.5
63	0767	0822	0876	0931	0985	1040	1094	1149	1203	1258	2 11.0
64	1313	1367	1422	1476	1531	1585	1640	1694	1749	1803	3 16.5
65	1858	1912	1967	2021	2076	2130	2185	2239	2294	2349	4 22.0
66	2403	2458	2512	2567	2621	2676	2730	2785	2839	2894	5 27.5
67	2948	3003	3057	3112	3166	3221	3275	3330	3384	3439	6 33.0
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69	4038	4093	4147	4202	4256	4311	4365	4420	4474	4529	8 44.0
7970	4583	4638	4692	4747	4801	4856	4910	4965	5019	5074	9 49.5
71	5128	5183	5237	5292	5346	5401	5455	5509	5564	5618	
72	5673	5727	5782	5836	5891	5945	6000	6054	6109	6163	
73	6218	6272	6327	6381	6436	6490	6544	6599	6653	6708	
74	6762	6817	6871	6926	6980	7035	7089	7144	7198	7252	
75	7307	7361	7416	7470	7525	7579	7634	7688	7743	7797	
76	7851	7906	7960	8015	8069	8124	8178	8233	8287	8341	
77	8396	8450	8505	8559	8614	8668	8723	8777	8831	8886	
78	8940	8995	9049	9104	9158	9212	9267	9321	9376	9430	
79	9485	9539	9594	9648	9702	9757	9811	9866	9920	9974	
7980	902 0029	0083	0138	0192	0247	0301	0355	0410	0464	0519	
81	0573	0628	0682	0736	0791	0845	0900	0954	1008	1063	54
82	1117	1172	1226	1280	1335	1389	1444	1498	1552	1607	1 5.4
83	1661	1716	1770	1824	1879	1933	1988	2042	2096	2151	2 10.8
84	2205	2260	2314	2368	2423	2477	2532	2586	2640	2695	3 16.2
85	2749	2804	2858	2912	2967	3021	3076	3130	3184	3239	4 21.6
86	3293	3347	3402	3456	3511	3565	3619	3674	3728	3782	5 27.0
87	3837	3891	3946	4000	4054	4109	4163	4217	4272	4326	6 32.4
88	4381	4435	4489	4544	4598	4652	4707	4761	4815	4870	7 37.8
89	4924	4979	5033	5087	5142	5196	5250	5305	5359	5413	8 43.2
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91	6011	6066	6120	6174	6229	6283	6337	6392	6446	6500	
92	6555	6609	6663	6718	6772	6826	6881	6935	6989	7044	
93	7098	7152	7207	7261	7315	7370	7424	7478	7533	7587	
94	7641	7696	7750	7804	7859	7913	7967	8022	8076	8130	
95	8185	8239	8293	8348	8402	8456	8511	8565	8619	8674	
96	8728	8782	8836	8891	8945	8999	9054	9108	9162	9217	
97	9271	9325	9380	9434	9488	9542	9597	9651	9705	9760	
98	9814	9868	9923	9977	$\bar{0}031$	$\bar{0}085$	$\bar{0}140$	$\bar{0}194$	$\bar{0}248$	$\bar{0}303$	
99	903 0357	0411	0466	0520	0574	0628	0683	0737	0791	0846	
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8000	903 0900	0954	1008	1063	1117	1171	1226	1280	1334	1388	
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03	2528	2582	2637	2691	2745	2799	2854	2908	2962	3017	
04	3071	3125	3179	3234	3288	3342	3396	3451	3505	3559	
05	3613	3668	3722	3776	3830	3885	3939	3993	4047	4102	
06	4156	4210	4264	4319	4373	4427	4481	4536	4590	4644	
07	4698	4753	4807	4861	4915	4969	5024	5078	5132	5186	
08	5241	5295	5349	5403	5458	5512	5566	5620	5674	5729	
09	5783	5837	5891	5946	6000	6054	6108	6163	6217	6271	
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11	6867	6922	6976	7030	7084	7138	7193	7247	7301	7355	55
12	7409	7464	7518	7572	7626	7680	7735	7789	7843	7897	1 5.5
13	7951	8006	8060	8114	8168	8222	8277	8331	8385	8439	2 11.0
14	8493	8548	8602	8656	8710	8764	8819	8873	8927	8981	3 16.5
15	9035	9089	9144	9198	9252	9306	9360	9415	9469	9523	4 22.0
16	9577	9631	9685	9740	9794	9848	9902	9956	0010	0065	5 27.5
17	904 0119	0173	0227	0281	0336	0390	0444	0498	0552	0606	6 33.0
18	0661	0715	0769	0823	0877	0931	0985	1040	1094	1148	7 38.5
19	1202	1256	1310	1365	1419	1473	1527	1581	1635	1690	8 44.0
8020	1744	1798	1852	1906	1960	2014	2069	2123	2177	2231	9 49.5
21	2285	2339	2393	2448	2502	2556	2610	2664	2718	2772	
22	2827	2881	2935	2989	3043	3097	3151	3206	3260	3314	
23	3368	3422	3476	3530	3584	3639	3693	3747	3801	3855	
24	3909	3963	4017	4072	4126	4180	4234	4288	4342	4396	
25	4450	4505	4559	4613	4667	4721	4775	4829	4883	4937	
26	4992	5046	5100	5154	5208	5262	5316	5370	5424	5479	
27	5533	5587	5641	5695	5749	5803	5857	5911	5965	6020	
28	6074	6128	6182	6236	6290	6344	6398	6452	6506	6560	
29	6615	6669	6723	6777	6831	6885	6939	6993	7047	7101	
8030	7155	7210	7264	7318	7372	7426	7480	7534	7588	7642	
31	7696	7750	7804	7858	7913	7967	8021	8075	8129	8183	54
32	8237	8291	8345	8399	8453	8507	8561	8615	8670	8724	1 5.4
33	8778	8832	8886	8940	8994	9048	9102	9156	9210	9264	2 10.8
34	9318	9372	9426	9480	9534	9589	9643	9697	9751	9805	3 16.2
35	9859	9913	9967	0021	0075	0129	0183	0237	0291	0345	4 21.6
36	905 0399	0453	0507	0561	0615	0669	0724	0778	0832	0886	5 27.0
37	0940	0994	1048	1102	1156	1210	1264	1318	1372	1426	6 32.4
38	1480	1534	1588	1642	1696	1750	1804	1858	1912	1966	7 37.8
39	2020	2074	2128	2182	2236	2290	2344	2398	2452	2506	8 43.2
8040	2560	2615	2669	2723	2777	2831	2885	2939	2993	3047	9 48.6
41	3101	3155	3209	3263	3317	3371	3425	3479	3533	3587	
42	3641	3695	3749	3803	3857	3911	3965	4019	4073	4127	
43	4181	4235	4289	4343	4397	4451	4505	4559	4613	4667	
44	4721	4775	4829	4883	4937	4991	5045	5099	5153	5207	
45	5260	5314	5368	5422	5476	5530	5584	5638	5692	5746	
46	5800	5854	5908	5962	6016	6070	6124	6178	6232	6286	
47	6340	6394	6448	6502	6556	6610	6664	6718	6772	6826	
48	6880	6934	6988	7042	7096	7149	7203	7257	7311	7365	
49	7419	7473	7527	7581	7635	7689	7743	7797	7851	7905	
8050	7959	8013	8067	8121	8175	8229	8282	8336	8390	8444	
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8050	905 7959	8013	8067	8121	8175	8229	8282	8336	8390	8444	
51	8498	8552	8606	8660	8714	8768	8822	8876	8930	8984	
52	9038	9092	9146	9199	9253	9307	9361	9415	9469	9523	
53	9577	9631	9685	9739	9793	9847	9901	9954	$\bar{0}008$	$\bar{0}062$	
54	906 0116	0170	0224	0278	0332	0386	0440	0494	0548	0602	
55	0655	0709	0763	0817	0871	0925	0979	1033	1087	1141	
56	1195	1248	1302	1356	1410	1464	1518	1572	1626	1680	
57	1734	1788	1841	1895	1949	2003	2057	2111	2165	2219	
58	2273	2327	2380	2434	2488	2542	2596	2650	2704	2758	
59	2812	2865	2919	2973	3027	3081	3135	3189	3243	3297	
8060	3350	3404	3458	3512	3566	3620	3674	3728	3781	3835	
61	3889	3943	3997	4051	4105	4159	4212	4266	4320	4374	54
62	4428	4482	4536	4590	4643	4697	4751	4805	4859	4913	1 5.4
63	4967	5020	5074	5128	5182	5236	5290	5344	5397	5451	2 10.8
64	5505	5559	5613	5667	5721	5774	5828	5882	5936	5990	3 16.2
65	6044	6098	6151	6205	6259	6313	6367	6421	6474	6528	4 21.6
66	6582	6636	6690	6744	6798	6851	6905	6959	7013	7067	5 27.0
67	7121	7174	7228	7282	7336	7390	7444	7497	7551	7605	6 32.4
68	7659	7713	7767	7820	7874	7928	7982	8036	8090	8143	7 37.8
69	8197	8251	8305	8359	8412	8466	8520	8574	8628	8682	8 43.2
8070	8735	8789	8843	8897	8951	9004	9058	9112	9166	9220	9 48.6
71	9273	9327	9381	9435	9489	9543	9596	9650	9704	9758	
72	9812	9865	9919	9973	$\bar{0}027$	$\bar{0}081$	$\bar{0}134$	$\bar{0}188$	$\bar{0}242$	$\bar{0}296$	
73	907 0350	0403	0457	0511	0565	0618	0672	0726	0780	0834	
74	0887	0941	0995	1049	1103	1156	1210	1264	1318	1372	
75	1425	1479	1533	1587	1640	1694	1748	1802	1856	1909	
76	1963	2017	2071	2124	2178	2232	2286	2340	2393	2447	
77	2501	2555	2608	2662	2716	2770	2823	2877	2931	2985	
78	3038	3092	3146	3200	3254	3307	3361	3415	3469	3522	
79	3576	3630	3684	3737	3791	3845	3899	3952	4006	4060	
8080	4114	4167	4221	4275	4329	4382	4436	4490	4544	4597	
81	4651	4705	4759	4812	4866	4920	4974	5027	5081	5135	53
82	5188	5242	5296	5350	5403	5457	5511	5565	5618	5672	1 5.3
83	5726	5780	5833	5887	5941	5994	6048	6102	6156	6209	2 10.6
84	6263	6317	6370	6424	6478	6532	6585	6639	6693	6747	3 15.9
85	6800	6854	6908	6961	7015	7069	7123	7176	7230	7284	4 21.2
86	7337	7391	7445	7498	7552	7606	7660	7713	7767	7821	5 26.5
87	7874	7928	7982	8036	8089	8143	8197	8250	8304	8358	6 31.8
88	8411	8465	8519	8573	8626	8680	8734	8787	8841	8895	7 37.1
89	8948	9002	9056	9109	9163	9217	9270	9324	9378	9432	8 42.4
8090	9485	9539	9593	9646	9700	9754	9807	9861	9915	9968	9 47.7
91	908 0022	0076	0129	0183	0237	0290	0344	0398	0451	0505	
92	0559	0612	0666	0720	0773	0827	0881	0934	0988	1042	
93	1095	1149	1203	1256	1310	1364	1417	1471	1525	1578	
94	1632	1686	1739	1793	1847	1900	1954	2008	2061	2115	
95	2169	2222	2276	2329	2383	2437	2490	2544	2598	2651	
96	2705	2759	2812	2866	2920	2973	3027	3080	3134	3188	
97	3241	3295	3349	3402	3456	3510	3563	3617	3670	3724	
98	3778	3831	3885	3939	3992	4046	4099	4153	4207	4260	
99	4314	4368	4421	4475	4528	4582	4636	4689	4743	4797	
8100	4850	4904	4957	5011	5065	5118	5172	5225	5279	5333	
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01	5386	5440	5494	5547	5601	5654	5708	5762	5815	5869	
02	5922	5976	6030	6083	6137	6190	6244	6298	6351	6403	
03	6458	6512	6566	6619	6673	6726	6780	6834	6887	6941	
04	6994	7048	7102	7155	7209	7262	7316	7369	7423	7477	
05	7530	7584	7637	7691	7745	7798	7852	7905	7959	8012	
06	8066	8120	8173	8227	8280	8334	8387	8441	8495	8548	
07	8602	8655	8709	8762	8816	8870	8923	8977	9030	9084	
08	9137	9191	9245	9298	9352	9405	9459	9512	9566	9619	
09	9673	9727	9780	9834	9887	9941	9994	0048	0101	0153	
8110	909 0209	0262	0316	0369	0423	0476	0530	0583	0637	0690	
11	0744	0798	0851	0905	0958	1012	1065	1119	1172	1226	54
12	1279	1333	1386	1440	1494	1547	1601	1654	1708	1761	1 5.4
13	1815	1868	1922	1975	2029	2082	2136	2189	2243	2297	2 10.8
14	2350	2404	2457	2511	2564	2618	2671	2725	2778	2832	3 16.2
15	2885	2939	2992	3046	3099	3153	3206	3260	3313	3367	4 21.6
16	3420	3474	3527	3581	3634	3688	3741	3795	3848	3902	5 27.0
17	3955	4009	4062	4116	4169	4223	4276	4330	4383	4437	6 32.4
18	4490	4544	4597	4651	4704	4758	4811	4865	4918	4972	7 37.8
19	5025	5079	5132	5186	5239	5293	5346	5400	5453	5507	8 43.2
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21	6095	6149	6202	6256	6309	6362	6416	6469	6523	6576	
22	6630	6683	6737	6790	6844	6897	6951	7004	7058	7111	
23	7165	7218	7271	7325	7378	7432	7485	7539	7592	7646	
24	7699	7753	7806	7860	7913	7966	8020	8073	8127	8180	
25	8234	8287	8341	8394	8447	8501	8554	8608	8661	8715	
26	8768	8822	8875	8929	8982	9035	9089	9142	9196	9249	
27	9303	9356	9409	9463	9516	9570	9623	9677	9730	9784	
28	9837	9890	9944	9997	0051	0104	0158	0211	0264	0318	
29	910 0371	0425	0478	0532	0585	0638	0692	0745	0799	0852	
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31	1440	1493	1546	1600	1653	1707	1760	1813	1867	1920	53
32	1974	2027	2081	2134	2187	2241	2294	2348	2401	2454	1 5.3
33	2508	2561	2615	2668	2721	2775	2828	2882	2935	2988	2 10.6
34	3042	3095	3148	3202	3255	3309	3362	3415	3469	3522	3 15.9
35	3576	3629	3682	3736	3789	3842	3896	3949	4003	4056	4 21.2
36	4109	4163	4216	4270	4323	4376	4430	4483	4536	4590	5 26.5
37	4643	4697	4750	4803	4857	4910	4963	5017	5070	5123	6 31.8
38	5177	5230	5284	5337	5390	5444	5497	5550	5604	5657	7 37.1
39	5710	5764	5817	5871	5924	5977	6031	6084	6137	6191	8 42.4
8140	6244	6297	6351	6404	6457	6511	6564	6618	6671	6724	9 47.7
41	6778	6831	6884	6938	6991	7044	7098	7151	7204	7258	
42	7311	7364	7418	7471	7524	7578	7631	7684	7738	7791	
43	7844	7898	7951	8004	8058	8111	8164	8218	8271	8324	
44	8378	8431	8484	8538	8591	8644	8698	8751	8804	8858	
45	8911	8964	9018	9071	9124	9177	9231	9284	9337	9391	
46	9444	9497	9551	9604	9657	9711	9764	9817	9871	9924	
47	9977	0030	0084	0137	0190	0244	0297	0350	0404	0457	
48	911 0510	0564	0617	0670	0723	0777	0830	0883	0937	0990	
49	1043	1096	1150	1203	1256	1310	1363	1416	1470	1523	
8150	1576	1629	1683	1736	1789	1843	1896	1949	2002	2056	
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52	2642	2695	2748	2802	2855	2908	2961	3015	3068	3121	
53	3174	3228	3281	3334	3387	3441	3494	3547	3601	3654	
54	3707	3760	3814	3867	3920	3973	4027	4080	4133	4186	
55	4240	4293	4346	4399	4453	4506	4559	4612	4666	4719	
56	4772	4825	4879	4932	4985	5038	5092	5145	5198	5251	
57	5305	5358	5411	5464	5518	5571	5624	5677	5731	5784	
58	5837	5890	5943	5997	6050	6103	6156	6210	6263	6316	
59	6369	6423	6476	6529	6582	6635	6689	6742	6795	6848	
8160	6902	6955	7008	7061	7114	7168	7221	7274	7327	7381	
61	7434	7487	7540	7593	7647	7700	7753	7806	7859	7913	53
62	7966	8019	8072	8126	8179	8232	8285	8338	8392	8445	1 5.3
63	8498	8551	8604	8658	8711	8764	8817	8870	8924	8977	2 10.6
64	9030	9083	9136	9190	9243	9296	9349	9402	9456	9509	3 15.9
65	9562	9615	9668	9721	9775	9828	9881	9934	9987	0041	4 21.2
66	912 0094	0147	0200	0253	0306	0360	0413	0466	0519	0572	5 26.5
67	0626	0679	0732	0785	0838	0891	0945	0998	1051	1104	6 31.8
68	1157	1210	1264	1317	1370	1423	1476	1529	1583	1636	7 37.1
69	1689	1742	1795	1848	1902	1955	2008	2061	2114	2167	8 42.4
8170	2221	2274	2327	2380	2433	2486	2539	2593	2646	2699	9 47.7
71	2752	2805	2858	2912	2965	3018	3071	3124	3177	3230	
72	3284	3337	3390	3443	3496	3549	3602	3656	3709	3762	
73	3815	3868	3921	3974	4028	4081	4134	4187	4240	4293	
74	4346	4399	4453	4506	4559	4612	4665	4718	4771	4824	
75	4878	4931	4984	5037	5090	5143	5196	5249	5303	5356	
76	5409	5462	5515	5568	5621	5674	5728	5781	5834	5887	
77	5940	5993	6046	6099	6152	6206	6259	6312	6365	6418	
78	6471	6524	6577	6630	6683	6737	6790	6843	6896	6949	
79	7002	7055	7108	7161	7214	7268	7321	7374	7427	7480	
8180	7533	7586	7639	7692	7745	7798	7852	7905	7958	8011	
81	8064	8117	8170	8223	8276	8329	8382	8436	8489	8542	52
82	8595	8648	8701	8754	8807	8860	8913	8966	9019	9072	1 5.2
83	9126	9179	9232	9285	9338	9391	9444	9497	9550	9603	2 10.4
84	9656	9709	9762	9815	9868	9922	9975	0028	0081	0134	3 15.6
85	913 0187	0240	0293	0346	0399	0452	0505	0558	0611	0664	4 20.8
86	0717	0770	0824	0877	0930	0983	1036	1089	1142	1195	5 26.0
87	1248	1301	1354	1407	1460	1513	1566	1619	1672	1725	6 31.2
88	1778	1831	1884	1937	1990	2044	2097	2150	2203	2256	7 36.4
89	2309	2362	2415	2468	2521	2574	2627	2680	2733	2786	8 41.6
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91	3369	3422	3475	3528	3581	3634	3687	3740	3793	3846	
92	3899	3952	4005	4058	4111	4165	4218	4271	4324	4377	
93	4430	4483	4536	4589	4642	4695	4748	4801	4854	4907	
94	4960	5013	5066	5119	5172	5225	5278	5331	5384	5437	
95	5490	5543	5596	5649	5702	5755	5808	5861	5914	5967	
96	6019	6072	6125	6178	6231	6284	6337	6390	6443	6496	
97	6549	6602	6655	6708	6761	6814	6867	6920	6973	7026	
98	7079	7132	7185	7238	7291	7344	7397	7450	7503	7556	
99	7609	7662	7715	7768	7821	7874	7927	7980	8033	8086	
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8200	913 8139	8191	8244	8297	8350	8403	8456	8509	8562	8615	
01	8668	8721	8774	8827	8880	8933	8986	9039	9092	9145	
02	9198	9251	9304	9356	9409	9462	9515	9568	9621	9674	
03	9727	9780	9833	9886	9939	9992	$\bar{0}$045	$\bar{0}$098	$\bar{0}$151	$\bar{0}$204	
04	914 0257	0309	0362	0415	0468	0521	0574	0627	0680	0733	
05	0786	0839	0892	0945	0998	1050	1103	1156	1209	1262	
06	1315	1368	1421	1474	1527	1580	1633	1686	1738	1791	
07	1844	1897	1950	2003	2056	2109	2162	2215	2268	2321	
08	2373	2426	2479	2532	2585	2638	2691	2744	2797	2850	
09	2903	2955	3008	3061	3114	3167	3220	3273	3326	3379	
8210	3432	3484	3537	3590	3643	3696	3749	3802	3855	3908	
11	3961	4013	4066	4119	4172	4225	4278	4331	4384	4437	53
12	4489	4542	4595	4648	4701	4754	4807	4860	4912	4965	1 5.3
13	5018	5071	5124	5177	5230	5283	5335	5388	5441	5494	2 10.6
14	5547	5600	5653	5706	5758	5811	5864	5917	5970	6023	3 15.9
15	6076	6129	6181	6234	6287	6340	6393	6446	6499	6551	4 21.2
16	6604	6657	6710	6763	6816	6869	6921	6974	7027	7080	5 26.5
17	7133	7186	7239	7291	7344	7397	7450	7503	7556	7609	6 31.8
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19	8190	8243	8295	8348	8401	8454	8507	8560	8613	8665	8 42.4
8220	8718	8771	8824	8877	8930	8982	9035	9088	9141	9194	9 47.7
21	9246	9299	9352	9405	9458	9511	9563	9616	9669	9722	
22	9775	9828	9880	9933	9986	$\bar{0}$039	$\bar{0}$092	$\bar{0}$144	$\bar{0}$197	$\bar{0}$250	
23	915 0303	0356	0409	0461	0514	0567	0620	0673	0725	0778	
24	0831	0884	0937	0989	1042	1095	1148	1201	1253	1306	
25	1359	1412	1465	1517	1570	1623	1676	1729	1781	1834	
26	1887	1940	1993	2045	2098	2151	2204	2257	2309	2362	
27	2415	2468	2521	2573	2626	2679	2732	2784	2837	2890	
28	2943	2996	3048	3101	3154	3207	3260	3312	3365	3418	
29	3471	3523	3576	3629	3682	3734	3787	3840	3893	3946	
8230	3998	4051	4104	4157	4209	4262	4315	4368	4420	4473	
31	4526	4579	4632	4684	4737	4790	4843	4895	4948	5001	52
32	5054	5106	5159	5212	5265	5317	5370	5423	5476	5528	1 5.2
33	5581	5634	5687	5739	5792	5845	5898	5950	6003	6056	2 10.4
34	6109	6161	6214	6267	6320	6372	6425	6478	6531	6583	3 15.6
35	6636	6689	6742	6794	6847	6900	6952	7005	7058	7111	4 20.8
36	7163	7216	7269	7322	7374	7427	7480	7532	7585	7638	5 26.0
37	7691	7743	7796	7849	7902	7954	8007	8060	8112	8165	6 31.2
38	8218	8271	8323	8376	8429	8481	8534	8587	8640	8692	7 36.4
39	8745	8798	8850	8903	8956	9009	9061	9114	9167	9219	8 41.6
8240	9272	9325	9378	9430	9483	9536	9588	9641	9694	9746	9 46.8
41	9799	9852	9905	9957	$\bar{0}$010	$\bar{0}$063	$\bar{0}$115	$\bar{0}$168	$\bar{0}$221	$\bar{0}$273	
42	916 0326	0379	0431	0484	0537	0590	0642	0695	0748	0800	
43	0853	0906	0958	1011	1064	1116	1169	1222	1274	1327	
44	1380	1433	1485	1538	1591	1643	1696	1749	1801	1854	
45	1907	1959	2012	2065	2117	2170	2223	2275	2328	2381	
46	2433	2486	2539	2591	2644	2697	2749	2802	2855	2907	
47	2960	3013	3065	3118	3171	3223	3276	3329	3381	3434	
48	3487	3539	3592	3644	3697	3750	3802	3855	3908	3960	
49	4013	4066	4118	4171	4224	4276	4329	4382	4434	4487	
8250	4539	4592	4645	4697	4750	4803	4855	4908	4961	5013	
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8250	916 4539	4592	4645	4697	4750	4803	4855	4908	4961	5013	
51	5066	5119	5171	5224	5276	5329	5382	5434	5487	5540	
52	5592	5645	5697	5750	5803	5855	5908	5961	6013	6066	
53	6118	6171	6224	6276	6329	6382	6434	6487	6539	6592	
54	6645	6697	6750	6802	6855	6908	6960	7013	7066	7118	
55	7171	7223	7276	7329	7381	7434	7486	7539	7592	7644	
56	7697	7749	7802	7855	7907	7960	8012	8065	8118	8170	
57	8223	8275	8328	8381	8433	8486	8538	8591	8644	8696	
58	8749	8801	8854	8907	8959	9012	9064	9117	9169	9222	
59	9275	9327	9380	9432	9485	9538	9590	9643	9695	9748	
8260	9800	9853	9906	9958	$\bar{0}011$	$\bar{0}063$	$\bar{0}116$	$\bar{0}169$	$\bar{0}221$	$\bar{0}274$	
61	917 0326	0379	0431	0484	0537	0589	0642	0694	0747	0799	53
62	0852	0904	0957	1010	1062	1115	1167	1220	1272	1325	1 5.3
63	1378	1430	1483	1535	1588	1640	1693	1745	1798	1851	2 10.6
64	1903	1956	2008	2061	2113	2166	2218	2271	2323	2376	3 15.9
65	2429	2481	2534	2586	2639	2691	2744	2796	2849	2901	4 21.2
66	2954	3007	3059	3112	3164	3217	3269	3322	3374	3427	5 26.5
67	3479	3532	3584	3637	3690	3742	3795	3847	3900	3952	6 31.8
68	4005	4057	4110	4162	4215	4267	4320	4372	4425	4477	7 37.1
69	4530	4582	4635	4687	4740	4793	4845	4898	4950	5003	8 42.4
8270	5055	5108	5160	5213	5265	5318	5370	5423	5475	5528	9 47.7
71	5580	5633	5685	5738	5790	5843	5895	5948	6000	6053	
72	6105	6158	6210	6263	6315	6368	6420	6473	6525	6578	
73	6630	6683	6735	6788	6840	6893	6945	6998	7050	7103	
74	7155	7208	7260	7313	7365	7418	7470	7523	7575	7628	
75	7680	7733	7785	7837	7890	7942	7995	8047	8100	8152	
76	8205	8257	8310	8362	8415	8467	8520	8572	8625	8677	
77	8730	8782	8834	8887	8939	8992	9044	9097	9149	9202	
78	9254	9307	9359	9412	9464	9517	9569	9621	9674	9726	
79	9779	9831	9884	9936	9989	$\bar{0}041$	$\bar{0}094$	$\bar{0}146$	$\bar{0}198$	$\bar{0}251$	
8280	918 0303	0356	0408	0461	0513	0566	0618	0671	0723	0775	
81	0828	0880	0933	0985	1038	1090	1143	1195	1247	1300	52
82	1352	1405	1457	1510	1562	1614	1667	1719	1772	1824	1 5.2
83	1877	1929	1981	2034	2086	2139	2191	2244	2296	2348	2 10.4
84	2401	2453	2506	2558	2611	2663	2715	2768	2820	2873	3 15.6
85	2925	2978	3030	3082	3135	3187	3240	3292	3344	3397	4 20.8
86	3449	3502	3554	3607	3659	3711	3764	3816	3869	3921	5 26.0
87	3973	4026	4078	4131	4183	4235	4288	4340	4393	4445	6 31.2
88	4497	4550	4602	4655	4707	4759	4812	4864	4917	4969	7 36.4
89	5021	5074	5126	5179	5231	5283	5336	5388	5441	5493	8 41.6
8290	5545	5598	5650	5702	5755	5807	5860	5912	5964	6017	9 46.8
91	6069	6122	6174	6226	6279	6331	6383	6436	6488	6541	
92	6593	6645	6698	6750	6802	6855	6907	6960	7012	7064	
93	7117	7169	7221	7274	7326	7378	7431	7483	7536	7588	
94	7640	7693	7745	7797	7850	7902	7954	8007	8059	8112	
95	8164	8216	8269	8321	8373	8426	8478	8530	8583	8635	
96	8687	8740	8792	8844	8897	8949	9002	9054	9106	9159	
97	9211	9263	9316	9368	9420	9473	9525	9577	9630	9682	
98	9734	9787	9839	9891	9944	9996	$\bar{0}048$	$\bar{0}101$	$\bar{0}153$	$\bar{0}205$	
99	919 0258	0310	0362	0415	0467	0519	0572	0624	0676	0729	
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01	1304	1356	1409	1461	1513	1566	1618	1670	1723	1775	
02	1827	1880	1932	1984	2037	2089	2141	2193	2246	2298	
03	2350	2403	2455	2507	2560	2612	2664	2717	2769	2821	
04	2873	2926	2978	3030	3083	3135	3187	3239	3292	3344	
05	3396	3449	3501	3553	3606	3658	3710	3762	3815	3867	
06	3919	3972	4024	4076	4128	4181	4233	4285	4338	4390	
07	4442	4494	4547	4599	4651	4703	4756	4808	4860	4913	
08	4965	5017	5069	5122	5174	5226	5279	5331	5383	5435	
09	5488	5540	5592	5644	5697	5749	5801	5853	5906	5958	
8310	6010	6062	6115	6167	6219	6272	6324	6376	6428	6481	
11	6533	6585	6637	6690	6742	6794	6846	6899	6951	7003	53
12	7055	7108	7160	7212	7264	7317	7369	7421	7473	7526	1 5.3
13	7578	7630	7682	7735	7787	7839	7891	7943	7996	8048	2 10.6
14	8100	8152	8205	8257	8309	8361	8414	8466	8518	8570	3 15.9
15	8623	8675	8727	8779	8831	8884	8936	8988	9040	9093	4 21.2
16	9145	9197	9249	9301	9354	9406	9458	9510	9563	9615	5 26.5
17	9667	9719	9771	9824	9876	9928	9980	0033	0085	0137	6 31.8
18	920 0189	0241	0294	0346	0398	0450	0502	0555	0607	0659	7 37.1
19	0711	0763	0816	0868	0920	0972	1024	1077	1129	1181	8 42.4
8320	1233	1285	1338	1390	1442	1494	1546	1599	1651	1703	9 47.7
21	1755	1807	1860	1912	1964	2016	2068	2121	2173	2225	
22	2277	2329	2381	2434	2486	2538	2590	2642	2695	2747	
23	2799	2851	2903	2955	3008	3060	3112	3164	3216	3269	
24	3321	3373	3425	3477	3529	3582	3634	3686	3738	3790	
25	3842	3895	3947	3999	4051	4103	4155	4208	4260	4312	
26	4364	4416	4468	4521	4573	4625	4677	4729	4781	4833	
27	4886	4938	4990	5042	5094	5146	5199	5251	5303	5355	
28	5407	5459	5511	5564	5616	5668	5720	5772	5824	5876	
29	5929	5981	6033	6085	6137	6189	6241	6294	6346	6398	
8330	6450	6502	6554	6606	6659	6711	6763	6815	6867	6919	
31	6971	7023	7076	7128	7180	7232	7284	7336	7388	7440	52
32	7493	7545	7597	7649	7701	7753	7805	7857	7910	7962	1 5.2
33	8014	8066	8118	8170	8222	8274	8327	8379	8431	8483	2 10.4
34	8535	8587	8639	8691	8743	8796	8848	8900	8952	9004	3 15.6
35	9056	9108	9160	9212	9264	9317	9369	9421	9473	9525	4 20.8
36	9577	9629	9681	9733	9785	9838	9890	9942	9994	0046	5 26.0
37	921 0098	0150	0202	0254	0306	0358	0411	0463	0515	0567	6 31.2
38	0619	0671	0723	0775	0827	0879	0931	0983	1036	1088	7 36.4
39	1140	1192	1244	1296	1348	1400	1452	1504	1556	1608	8 41.6
8340	1661	1713	1765	1817	1869	1921	1973	2025	2077	2129	9 46.8
41	2181	2233	2285	2337	2389	2442	2494	2546	2598	2650	
42	2702	2754	2806	2858	2910	2962	3014	3066	3118	3170	
43	3222	3274	3327	3379	3431	3483	3535	3587	3639	3691	
44	3743	3795	3847	3899	3951	4003	4055	4107	4159	4211	
45	4263	4315	4367	4420	4472	4524	4576	4628	4680	4732	
46	4784	4836	4888	4940	4992	5044	5096	5148	5200	5252	
47	5304	5356	5408	5460	5512	5564	5616	5668	5720	5772	
48	5824	5876	5928	5980	6032	6085	6137	6189	6241	6293	
49	6345	6397	6449	6501	6553	6605	6657	6709	6761	6813	
8350	6865	6917	6969	7021	7073	7125	7177	7229	7281	7333	
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52	7905	7957	8009	8061	8113	8165	8217	8269	8321	8373	
53	8425	8477	8529	8581	8633	8685	8737	8789	8841	8893	
54	8945	8997	9049	9101	9153	9205	9257	9309	9361	9413	
55	9465	9517	9569	9620	9672	9724	9776	9828	9880	9932	
56	9984	0036	0088	0140	0192	0244	0296	0348	0400	0452	
57	922 0504	0556	0608	0660	0712	0764	0816	0868	0920	0972	
58	1024	1076	1128	1180	1232	1283	1335	1387	1439	1491	
59	1543	1595	1647	1699	1751	1803	1855	1907	1959	2011	
8360	2063	2115	2167	2219	2271	2323	2374	2426	2478	2530	
61	2582	2634	2686	2738	2790	2842	2894	2946	2998	3050	52
62	3102	3154	3206	3257	3309	3361	3413	3465	3517	3569	1 5.2
63	3621	3673	3725	3777	3829	3881	3933	3984	4036	4088	2 10.4
64	4140	4192	4244	4296	4348	4400	4452	4504	4556	4608	3 15.6
65	4659	4711	4763	4815	4367	4919	4971	5023	5075	5127	4 20.8
66	5179	5231	5282	5334	5386	5438	5490	5542	5594	5646	5 26.0
67	5698	5750	5801	5853	5905	5957	6009	6061	6113	6165	6 31.2
68	6217	6269	6321	6372	6424	6476	6528	6580	6632	6684	7 36.4
69	6736	6788	6839	6891	6943	6995	7047	7099	7151	7203	8 41.6
8370	7255	7306	7358	7410	7462	7514	7566	7618	7670	7722	9 46.8
71	7773	7825	7877	7929	7981	8033	8085	8137	8188	8240	
72	8292	8344	8396	8448	8500	8552	8603	8655	8707	8759	
73	8811	8863	8915	8967	9018	9070	9122	9174	9226	9278	
74	9330	9381	9433	9485	9537	9589	9641	9693	9744	9796	
75	9848	9900	9952	0004	0056	0107	0159	0211	0263	0315	
76	923 0367	0419	0470	0522	0574	0626	0678	0730	0781	0833	
77	0885	0937	0989	1041	1093	1144	1196	1248	1300	1352	
78	1404	1455	1507	1559	1611	1663	1715	1766	1818	1870	
79	1922	1974	2026	2077	2129	2181	2233	2285	2337	2388	
8380	2440	2492	2544	2596	2647	2699	2751	2803	2855	2907	
81	2958	3010	3062	3114	3166	3217	3269	3321	3373	3425	51
82	3477	3528	3580	3632	3684	3736	3787	3839	3891	3943	1 5.1
83	3995	4046	4098	4150	4202	4254	4305	4357	4409	4461	2 10.2
84	4513	4564	4616	4668	4720	4772	4823	4875	4927	4979	3 15.3
85	5031	5082	5134	5186	5238	5290	5341	5393	5445	5497	4 20.4
86	5549	5600	5652	5704	5756	5808	5859	5911	5963	6015	5 25.5
87	6066	6118	6170	6222	6274	6325	6377	6429	6481	6532	6 30.6
88	6584	6636	6688	6740	6791	6843	6895	6947	6998	7050	7 35.7
89	7102	7154	7205	7257	7309	7361	7413	7464	7516	7568	8 40.8
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91	8137	8189	8241	8292	8344	8396	8448	8499	8551	8603	
92	8655	8707	8758	8810	8862	8913	8965	9017	9069	9120	
93	9172	9224	9276	9327	9379	9431	9483	9534	9586	9638	
94	9690	9741	9793	9845	9897	9948	0000	0052	0104	0155	
95	924 0207	0259	0310	0362	0414	0466	0517	0569	0621	0673	
96	0724	0776	0828	0879	0931	0983	1035	1086	1138	1190	
97	1242	1293	1345	1397	1448	1500	1552	1604	1655	1707	
98	1759	1810	1862	1914	1966	2017	2069	2121	2172	2224	
99	2276	2328	2379	2431	2483	2534	2586	2638	2689	2741	
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01	3310	3362	3413	3465	3517	3568	3620	3672	3723	3775	
02	3827	3878	3930	3982	4034	4085	4137	4189	4240	4292	
03	4344	4395	4447	4499	4550	4602	4654	4705	4757	4809	
04	4860	4912	4964	5015	5067	5119	5170	5222	5274	5326	
05	5377	5429	5481	5532	5584	5636	5687	5739	5791	5842	
06	5894	5946	5997	6049	6101	6152	6204	6255	6307	6359	
07	6410	6462	6514	6565	6617	6669	6720	6772	6824	6875	
08	6927	6979	7030	7082	7134	7185	7237	7289	7340	7392	
09	7444	7495	7547	7598	7650	7702	7753	7805	7857	7908	
8410	7960	8012	8063	8115	8167	8218	8270	8321	8373	8425	
11	8476	8528	8580	8631	8683	8734	8786	8838	8889	8941	52
12	8993	9044	9096	9148	9199	9251	9302	9354	9406	9457	1 5.2
13	9509	9561	9612	9664	9715	9767	9819	9870	9922	9973	2 10.4
14	925 0025	0077	0128	0180	0232	0283	0335	0386	0438	0490	3 15.6
15	0541	0593	0644	0696	0748	0799	0851	0902	0954	1006	4 20.8
16	1057	1109	1160	1212	1264	1315	1367	1418	1470	1522	5 26.0
17	1573	1625	1676	1728	1780	1831	1883	1934	1986	2038	6 31.2
18	2089	2141	2192	2244	2296	2347	2399	2450	2502	2554	7 36.4
19	2605	2657	2708	2760	2811	2863	2915	2966	3018	3069	8 41.6
8420	3121	3172	3224	3276	3327	3379	3430	3482	3534	3585	9 46.8
21	3637	3688	3740	3791	3843	3895	3946	3998	4049	4101	
22	4152	4204	4256	4307	4359	4410	4462	4513	4565	4616	
23	4668	4720	4771	4823	4874	4926	4977	5029	5080	5132	
24	5184	5235	5287	5338	5390	5441	5493	5544	5596	5648	
25	5699	5751	5802	5854	5905	5957	6008	6060	6111	6163	
26	6215	6266	6318	6369	6421	6472	6524	6575	6627	6678	
27	6730	6781	6833	6885	6936	6988	7039	7091	7142	7194	
28	7245	7297	7348	7400	7451	7503	7554	7606	7657	7709	
29	7761	7812	7864	7915	7967	8018	8070	8121	8173	8224	
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31	8791	8842	8894	8945	8997	9048	9100	9151	9203	9254	51
32	9306	9357	9409	9460	9512	9563	9615	9667	9718	9770	1 5.1
33	9821	9873	9924	9975	0027	0078	0130	0181	0233	0284	2 10.2
34	926 0336	0387	0439	0490	0542	0593	0645	0696	0748	0799	3 15.3
35	0851	0902	0954	1005	1057	1108	1160	1211	1263	1314	4 20.4
36	1366	1417	1469	1520	1572	1623	1675	1726	1778	1829	5 25.5
37	1880	1932	1983	2035	2086	2138	2189	2241	2292	2344	6 30.6
38	2395	2447	2498	2550	2601	2653	2704	2755	2807	2858	7 35.7
39	2910	2961	3013	3064	3116	3167	3219	3270	3322	3373	8 40.8
8440	3424	3476	3527	3579	3630	3682	3733	3785	3836	3888	9 45.9
41	3939	3990	4042	4093	4145	4196	4248	4299	4351	4402	
42	4453	4505	4556	4608	4659	4711	4762	4814	4865	4916	
43	4968	5019	5071	5122	5174	5225	5277	5328	5379	5431	
44	5482	5534	5585	5637	5688	5739	5791	5842	5894	5945	
45	5997	6048	6099	6151	6202	6254	6305	6357	6408	6459	
46	6511	6562	6614	6665	6716	6768	6819	6871	6922	6974	
47	7025	7076	7128	7179	7231	7282	7333	7385	7436	7488	
48	7539	7590	7642	7693	7745	7796	7847	7899	7950	8002	
49	8053	8105	8156	8207	8259	8310	8362	8413	8464	8516	
8450	8567	8618	8670	8721	8773	8824	8875	8927	8978	9030	
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8450	926 8567	8618	8670	8721	8773	8824	8875	8927	8978	9030	
51	9081	9132	9184	9235	9287	9338	9389	9441	9492	9543	
52	9593	9646	9698	9749	9800	9852	9903	9955	0006	0057	
53	927 0109	0160	0211	0263	0314	0366	0417	0468	0520	0571	
54	0622	0674	0725	0777	0828	0879	0931	0982	1033	1085	
55	1136	1187	1239	1290	1342	1393	1444	1496	1547	1598	
56	1650	1701	1752	1804	1855	1907	1958	2009	2061	2112	
57	2163	2215	2266	2317	2369	2420	2471	2523	2574	2625	
58	2677	2728	2780	2831	2882	2934	2985	3036	3088	3139	
59	3190	3242	3293	3344	3396	3447	3498	3550	3601	3652	
8460	3704	3755	3806	3858	3909	3960	4012	4063	4114	4166	
61	4217	4268	4320	4371	4422	4474	4525	4576	4628	4679	52
62	4730	4782	4833	4884	4935	4987	5038	5089	5141	5192	1 5.2
63	5243	5295	5346	5397	5449	5500	5551	5603	5654	5705	2 10.4
64	5757	5808	5859	5910	5962	6013	6064	6116	6167	6218	3 15.6
65	6270	6321	6372	6424	6475	6526	6577	6629	6680	6731	4 20.8
66	6783	6834	6885	6937	6988	7039	7090	7142	7193	7244	5 26.0
67	7296	7347	7398	7449	7501	7552	7603	7655	7706	7757	6 31.2
68	7808	7860	7911	7962	8014	8065	8116	8167	8219	8270	7 36.4
69	8321	8373	8424	8475	8526	8578	8629	8680	8732	8783	8 41.6
8470	8834	8885	8937	8988	9039	9090	9142	9193	9244	9296	9 46.8
71	9347	9398	9449	9501	9552	9603	9654	9706	9757	9808	
72	9859	9911	9962	0013	0065	0116	0167	0218	0270	0321	
73	928 0372	0423	0475	0526	0577	0628	0680	0731	0782	0833	
74	0885	0936	0987	1038	1090	1141	1192	1243	1295	1346	
75	1397	1448	1500	1551	1602	1653	1705	1756	1807	1858	
76	1909	1961	2012	2063	2114	2166	2217	2268	2319	2371	
77	2422	2473	2524	2576	2627	2678	2729	2780	2832	2883	
78	2934	2985	3037	3088	3139	3190	3241	3293	3344	3395	
79	3446	3498	3549	3600	3651	3702	3754	3805	3856	3907	
8480	3959	4010	4061	4112	4163	4215	4266	4317	4368	4419	
81	4471	4522	4573	4624	4675	4727	4778	4829	4880	4931	51
82	4983	5034	5085	5136	5187	5239	5290	5341	5392	5443	1 5.1
83	5495	5546	5597	5648	5699	5751	5802	5853	5904	5955	2 10.2
84	6007	6058	6109	6160	6211	6263	6314	6365	6416	6467	3 15.3
85	6518	6570	6621	6672	6723	6774	6826	6877	6928	6979	4 20.4
86	7030	7081	7133	7184	7235	7286	7337	7389	7440	7491	5 25.5
87	7542	7593	7644	7696	7747	7798	7849	7900	7951	8003	6 30.6
88	8054	8105	8156	8207	8258	8310	8361	8412	8463	8514	7 35.7
89	8565	8616	8668	8719	8770	8821	8872	8923	8975	9026	8 40.8
8490	9077	9128	9179	9230	9282	9333	9384	9435	9486	9537	9 45.9
91	9588	9640	9691	9742	9793	9844	9895	9946	9998	0049	
92	929 0100	0151	0202	0253	0304	0356	0407	0458	0509	0560	
93	0611	0662	0714	0765	0816	0867	0918	0969	1020	1071	
94	1123	1174	1225	1276	1327	1378	1429	1480	1532	1583	
95	1634	1685	1736	1787	1838	1889	1941	1992	2043	2094	
96	2145	2196	2247	2298	2350	2401	2452	2503	2554	2605	
97	2656	2707	2758	2810	2861	2912	2963	3014	3065	3116	
98	3167	3218	3269	3321	3372	3423	3474	3525	3576	3627	
99	3678	3729	3780	3832	3883	3934	3985	4036	4087	4138	
8500	4189	4240	4291	4343	4394	4445	4496	4547	4598	4649	
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8500	929 4189	4240	4291	4343	4394	4445	4496	4547	4598	4649	
01	4700	4751	4802	4853	4905	4956	5007	5058	5109	5160	
02	5211	5262	5313	5364	5415	5466	5517	5569	5620	5671	
03	5722	5773	5824	5875	5926	5977	6028	6079	6130	6181	
04	6233	6284	6335	6386	6437	6488	6539	6590	6641	6692	
05	6743	6794	6845	6896	6947	6998	7050	7101	7152	7203	
06	7254	7305	7356	7407	7458	7509	7560	7611	7662	7713	
07	7764	7815	7866	7917	7969	8020	8071	8122	8173	8224	
08	8275	8326	8377	8428	8479	8530	8581	8632	8683	8734	
09	8785	8836	8887	8938	8989	9040	9091	9142	9194	9245	
8510	9296	9347	9398	9449	9500	9551	9602	9653	9704	9755	
11	9806	9857	9908	9959	$\bar{0}$010	$\bar{0}$061	$\bar{0}$112	$\bar{0}$163	$\bar{0}$214	$\bar{0}$265	52
12	930 0316	0367	0418	0469	0520	0571	0622	0673	0724	0775	1 5.2
13	0826	0877	0928	0979	1030	1081	1132	1183	1234	1285	2 10.4
14	1336	1387	1438	1489	1540	1591	1643	1694	1745	1796	3 15.6
15	1847	1898	1949	2000	2051	2102	2153	2204	2255	2306	4 20.8
16	2357	2408	2459	2510	2561	2612	2663	2713	2764	2815	5 26.0
17	2866	2917	2968	3019	3070	3121	3172	3223	3274	3325	6 31.2
18	3376	3427	3478	3529	3580	3631	3682	3733	3784	3835	7 36.4
19	3886	3937	3988	4039	4090	4141	4192	4243	4294	4345	8 41.6
8520	4396	4447	4498	4549	4600	4651	4702	4753	4804	4855	9 46.8
21	4906	4957	5008	5059	5110	5160	5211	5262	5313	5364	
22	5415	5466	5517	5568	5619	5670	5721	5772	5823	5874	
23	5925	5976	6027	6078	6129	6180	6231	6282	6333	6383	
24	6434	6485	6536	6587	6638	6689	6740	6791	6842	6893	
25	6944	6995	7046	7097	7148	7199	7250	7300	7351	7402	
26	7453	7504	7555	7606	7657	7708	7759	7810	7861	7912	
27	7963	8014	8064	8115	8166	8217	8268	8319	8370	8421	
28	8472	8523	8574	8625	8676	8727	8777	8828	8879	8930	
29	8981	9032	9083	9134	9185	9236	9287	9338	9388	9439	
8530	9490	9541	9592	9643	9694	9745	9796	9847	9898	9949	
31	9999	$\bar{0}$050	$\bar{0}$101	$\bar{0}$152	$\bar{0}$203	$\bar{0}$254	$\bar{0}$305	$\bar{0}$356	$\bar{0}$407	$\bar{0}$458	51
32	931 0508	0559	0610	0661	0712	0763	0814	0865	0916	0967	1 5.1
33	1017	1068	1119	1170	1221	1272	1323	1374	1425	1475	2 10.2
34	1526	1577	1628	1679	1730	1781	1832	1883	1933	1984	3 15.3
35	2035	2086	2137	2188	2239	2290	2341	2391	2442	2493	4 20.4
36	2544	2595	2646	2697	2748	2798	2849	2900	2951	3002	5 25.5
37	3053	3104	3155	3205	3256	3307	3358	3409	3460	3511	6 30.6
38	3562	3612	3663	3714	3765	3816	3867	3918	3968	4019	7 35.7
39	4070	4121	4172	4223	4274	4324	4375	4426	4477	4528	8 40.8
8540	4579	4630	4680	4731	4782	4833	4884	4935	4986	5036	9 45.9
41	5087	5138	5189	5240	5291	5341	5392	5443	5494	5545	
42	5596	5647	5697	5748	5799	5850	5901	5952	6002	6053	
43	6104	6155	6206	6257	6307	6358	6409	6460	6511	6562	
44	6612	6663	6714	6765	6816	6867	6917	6968	7019	7070	
45	7121	7171	7222	7273	7324	7375	7426	7476	7527	7578	
46	7629	7680	7731	7781	7832	7883	7934	7985	8035	8086	
47	8137	8188	8239	8289	8340	8391	8442	8493	8544	8594	
48	8645	8696	8747	8798	8848	8899	8950	9001	9052	9102	
49	9153	9204	9255	9306	9356	9407	9458	9509	9560	9610	
8550	9661	9712	9763	9814	9864	9915	9966	$\bar{0}$017	$\bar{0}$067	$\bar{0}$118	
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51	932 0169	0220	0271	0321	0372	0423	0474	052$\bar{5}$	0575	0626	
52	0677	0728	0778	0829	0880	0931	0982	1032	1083	1134	
53	1185	1235	1286	1337	1388	1439	1489	1540	1591	1642	
54	1692	1743	1794	184$\bar{5}$	1896	1946	1997	2048	2099	2149	
55	2200	2251	2302	2352	2403	2454	250$\bar{5}$	2555	2606	2657	
56	2708	2759	2809	2860	2911	2962	3012	3063	3114	316$\bar{5}$	
57	3215	3266	3317	3368	3418	3469	3520	3571	3621	3672	
58	3723	3774	3824	3875	3926	3977	4027	4078	4129	4180	
59	4230	4281	4332	4382	4433	4484	453$\bar{5}$	4585	4636	4687	
8560	4738	4788	4839	4890	4941	4991	5042	5093	5144	5194	
61	524$\bar{5}$	5296	5346	5397	5448	5499	5549	5600	5651	5702	51
62	5752	5803	5854	5904	5955	6006	6057	6107	6158	6209	1 5.1
63	6259	6310	6361	6412	6462	6513	6564	6614	6665	6716	2 10.2
64	6767	6817	6868	6919	6969	7020	7071	7122	7172	7223	3 15.3
65	7274	7324	7375	7426	7476	7527	7578	7629	7679	7730	4 20.4
66	7781	7831	7882	7933	7983	8034	808$\bar{5}$	8136	8186	8237	5 25.5
67	8288	8338	8389	8440	8490	8541	8592	8643	8693	8744	6 30.6
68	879$\bar{5}$	8845	8896	8947	8997	9048	9099	9149	9200	9251	7 35.7
69	9301	9352	9403	9453	9504	955$\bar{5}$	9606	9656	9707	9758	8 40.8
8570	9808	9859	9910	9960	$\bar{0}$011	$\bar{0}$062	$\bar{0}$112	$\bar{0}$163	$\bar{0}$214	$\bar{0}$264	9 45.9
71	933 0315	0366	0416	0467	0518	0568	0619	0670	0720	0771	
72	0822	0872	0923	0974	1024	107$\bar{5}$	1126	1176	1227	1278	
73	1328	1379	1430	1480	1531	1582	1632	1683	1733	1784	
74	183$\bar{5}$	1885	1936	1987	2037	2088	2139	2189	2240	2291	
75	2341	2392	2443	2493	2544	259$\bar{5}$	2645	2696	2746	2797	
76	2848	2898	2949	3000	3050	3101	3152	3202	3253	3303	
77	3354	340$\bar{5}$	3455	3506	3557	3607	3658	3709	3759	3810	
78	3860	3911	3962	4012	4063	4114	4164	421$\bar{5}$	4265	4316	
79	4367	4417	4468	4519	4569	4620	4670	4721	4772	4822	
8580	4873	4923	4974	502$\bar{5}$	5075	5126	5177	5227	5278	5328	
81	5379	5430	5480	5531	5581	5632	5683	5733	5784	5834	50
82	5885	5936	5986	6037	6088	6138	6189	6239	6290	6341	1 5.0
83	6391	6442	6492	6543	6594	6644	669$\bar{5}$	6745	6796	6846	2 10.0
84	6897	6948	6998	7049	7099	7150	7201	7251	7302	7352	3 15.0
85	7403	7454	7504	755$\bar{5}$	7605	7656	7707	7757	7808	7858	4 20.0
86	7909	7959	8010	8061	8111	8162	8212	8263	8313	8364	5 25.0
87	841$\bar{5}$	8465	8516	8566	8617	8668	8718	8769	8819	8870	6 30.0
88	8920	8971	9021	9072	9123	9173	9224	9274	932$\bar{5}$	9375	7 35.0
89	9426	9477	9527	9578	9628	9679	9729	9780	9831	9881	8 40.0
8590	9932	9982	$\bar{0}$033	$\bar{0}$083	$\bar{0}$134	$\bar{0}$184	$\bar{0}$235	$\bar{0}$286	$\bar{0}$336	$\bar{0}$387	9 45.0
91	934 0437	0488	0538	0589	0639	0690	0740	0791	0842	0892	
92	0943	0993	1044	1094	114$\bar{5}$	1195	1246	1296	1347	1398	
93	1448	1499	1549	1600	1650	1701	1751	1802	1852	1903	
94	1953	2004	205$\bar{5}$	2105	2156	2206	2257	2307	2358	2408	
95	2459	2509	2560	2610	2661	2711	2762	2812	2863	2914	
96	2964	301$\bar{5}$	3065	3116	3166	3217	3267	3318	3368	3419	
97	3469	3520	3570	3621	3671	3722	3772	3823	3873	3924	
98	3974	402$\bar{5}$	4075	4126	4176	4227	4277	4328	4378	4429	
99	4479	4530	4580	4631	4682	4732	4783	4833	4884	4934	
8600	4985	5035	5086	5136	5187	5237	5287	5338	5388	5439	
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8600	934 4985	5035	5086	5136	5187	5237	5287	5338	5388	5439	
01	5489	5540	5590	5641	5691	5742	5792	5843	5893	5944	
02	5994	6045	6095	6146	6196	6247	6297	6348	6398	6449	
03	6499	6550	6600	6651	6701	6752	6802	6853	6903	6954	
04	7004	7054	7105	7155	7206	7256	7307	7357	7408	7458	
05	7509	7559	7610	7660	7711	7761	7812	7862	7912	7963	
06	8013	8064	8114	8165	8215	8266	8316	8367	8417	8468	
07	8518	8568	8619	8669	8720	8770	8821	8871	8922	8972	
08	9023	9073	9123	9174	9224	9275	9325	9376	9426	9477	
09	9527	9578	9628	9678	9729	9779	9830	9880	9931	9981	
8610	935 0032	0082	0132	0183	0233	0284	0334	0385	0435	0485	
11	0536	0586	0637	0687	0738	0788	0838	0889	0939	0990	51
12	1040	1091	1141	1191	1242	1292	1343	1393	1444	1494	1 5.1
13	1544	1595	1645	1696	1746	1797	1847	1897	1948	1998	2 10.2
14	2049	2099	2150	2200	2250	2301	2351	2402	2452	2502	3 15.3
15	2553	2603	2654	2704	2754	2805	2855	2906	2956	3006	4 20.4
16	3057	3107	3158	3208	3259	3309	3359	3410	3460	3511	5 25.5
17	3561	3611	3662	3712	3763	3813	3863	3914	3964	4015	6 30.6
18	4065	4115	4166	4216	4266	4317	4367	4418	4468	4518	7 35.7
19	4569	4619	4670	4720	4770	4821	4871	4922	4972	5022	8 40 8
8620	5073	5123	5173	5224	5274	5325	5375	5425	5476	5526	9 45.9
21	5576	5627	5677	5728	5778	5828	5879	5929	5979	6030	
22	6080	6131	6181	6231	6282	6332	6382	6433	6483	6533	
23	6584	6634	6685	6735	6785	6836	6886	6936	6987	7037	
24	7087	7138	7188	7239	7289	7339	7390	7440	7490	7541	
25	7591	7641	7692	7742	7792	7843	7893	7943	7994	8044	
26	8095	8145	8195	8246	8296	8346	8397	8447	8497	8548	
27	8598	8648	8699	8749	8799	8850	8900	8950	9001	9051	
28	9101	9152	9202	9252	9303	9353	9403	9454	9504	9554	
29	9605	9655	9705	9756	9806	9856	9907	9957	0007	0058	
8630	936 0108	0158	0209	0259	0309	0360	0410	0460	0511	0561	
31	0611	0661	0712	0762	0812	0863	0913	0963	1014	1064	50
32	1114	1165	1215	1265	1316	1366	1416	1466	1517	1567	1 5.0
33	1617	1668	1718	1768	1819	1869	1919	1970	2020	2070	2 10.0
34	2120	2171	2221	2271	2322	2372	2422	2473	2523	2573	3 15.0
35	2623	2674	2724	2774	2825	2875	2925	2975	3026	3076	4 20.0
36	3126	3177	3227	3277	3327	3378	3428	3478	3529	3579	5 25.0
37	3629	3679	3730	3780	3830	3881	3931	3981	4031	4082	6 30.0
38	4132	4182	4233	4283	4333	4383	4434	4484	4534	4584	7 35.0
39	4635	4685	4735	4786	4836	4886	4936	4987	5037	5087	8 40.0
8640	5137	5188	5238	5288	5338	5389	5439	5489	5540	5590	9 45.0
41	5640	5690	5741	5791	5841	5891	5942	5992	6042	6092	
42	6143	6193	6243	6293	6344	6394	6444	6494	6545	6595	
43	6645	6695	6746	6796	6846	6896	6947	6997	7047	7097	
44	7148	7198	7248	7298	7349	7399	7449	7499	7550	7600	
45	7650	7700	7750	7801	7851	7901	7951	8002	8052	8102	
46	8152	8203	8253	8303	8353	8403	8454	8504	8554	8604	
47	8655	8705	8755	8805	8855	8906	8956	9006	9056	9107	
48	9157	9207	9257	9307	9358	9408	9458	9508	9559	9609	
49	9659	9709	9759	9810	9860	9910	9960	0010	0061	0111	
8650	937 0161	0211	0261	0312	0362	0412	0462	0513	0563	0613	
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51	0663	0713	0764	0814	0864	0914	0964	1015	1065	1115	
52	1165	1215	1265	1316	1366	1416	1466	1516	1567	1617	
53	1667	1717	1767	1818	1868	1918	1968	2018	2069	2119	
54	2169	2219	2269	2319	2370	2420	2470	2520	2570	2621	
55	2671	2721	2771	2821	2871	2922	2972	3022	3072	3122	
56	3172	3223	3273	3323	3373	3423	3474	3524	3574	3624	
57	3674	3724	3775	3825	3875	3925	3975	4025	4075	4126	
58	4176	4226	4276	4326	4376	4427	4477	4527	4577	4627	
59	4677	4728	4778	4828	4878	4928	4978	5028	5079	5129	
8660	5179	5229	5279	5329	5380	5430	5480	5530	5580	5630	
61	5680	5731	5781	5831	5881	5931	5981	6031	6082	6132	50
62	6182	6232	6282	6332	6382	6432	6483	6533	6583	6633	1 5.0
63	6683	6733	6783	6834	6884	6934	6984	7034	7084	7134	2 10.0
64	7184	7235	7285	7335	7385	7435	7485	7535	7585	7636	3 15.0
65	7686	7736	7786	7836	7886	7936	7986	8037	8087	8137	4 20.0
66	8187	8237	8287	8337	8387	8437	8488	8538	8588	8638	5 25.0
67	8688	8738	8788	8838	8888	8939	8989	9039	9089	9139	6 30.0
68	9189	9239	9289	9339	9389	9440	9490	9540	9590	9640	7 35.0
69	9690	9740	9790	9840	9890	9941	9991	0041	0091	0141	8 40.0
8670	938 0191	0241	0291	0341	0391	0441	0492	0542	0592	0642	9 45.0
71	0692	0742	0792	0842	0892	0942	0992	1042	1093	1143	
72	1193	1243	1293	1343	1393	1443	1493	1543	1593	1643	
73	1693	1744	1794	1844	1894	1944	1994	2044	2094	2144	
74	2194	2244	2294	2344	2394	2445	2495	2545	2595	2645	
75	2695	2745	2795	2845	2895	2945	2995	3045	3095	3145	
76	3195	3245	3296	3346	3396	3446	3496	3546	3596	3646	
77	3696	3746	3796	3846	3896	3946	3996	4046	4096	4146	
78	4196	4247	4297	4347	4397	4447	4497	4547	4597	4647	
79	4697	4747	4797	4847	4897	4947	4997	5047	5097	5147	
8680	5197	5247	5297	5347	5397	5447	5497	5547	5598	5648	
81	5698	5748	5798	5848	5898	5948	5998	6048	6098	6148	49
82	6198	6248	6298	6348	6398	6448	6498	6548	6598	6648	1 4.9
83	6698	6748	6798	6848	6898	6948	6998	7048	7098	7148	2 9.8
84	7198	7248	7298	7348	7398	7448	7498	7548	7598	7648	3 14.7
85	7698	7748	7798	7848	7898	7948	7998	8048	8098	8148	4 19.6
86	8198	8248	8298	8348	8398	8448	8498	8548	8598	8648	5 24.5
87	8698	8748	8798	8848	8898	8948	8998	9048	9098	9148	6 29.4
88	9198	9248	9298	9348	9398	9448	9498	9548	9598	9648	7 34.3
89	9698	9748	9798	9848	9898	9948	9998	0048	0098	0148	8 39.2
8690	939 0198	0248	0298	0348	0398	0448	0498	0548	0598	0648	9 44.1
91	0697	0747	0797	0847	0897	0947	0997	1047	1097	1147	
92	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	
93	1697	1747	1797	1847	1897	1947	1997	2046	2096	2146	
94	2196	2246	2296	2346	2396	2446	2496	2546	2596	2646	
95	2696	2746	2796	2846	2896	2946	2996	3045	3095	3145	
96	3195	3245	3295	3345	3395	3445	3495	3545	3595	3645	
97	3695	3745	3795	3845	3894	3944	3994	4044	4094	4144	
98	4194	4244	4294	4344	4394	4444	4494	4544	4593	4643	
99	4693	4743	4793	4843	4893	4943	4993	5043	5093	5143	
8700	5193	5242	5292	5342	5392	5442	5492	5542	5592	5642	
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8700	939 5193	5242	5292	5342	5392	5442	5492	5542	5592	5642	
01	5692	5742	5792	5841	5891	5941	5991	6041	6091	6141	
02	6191	6241	6291	6341	6390	6440	6490	6540	6590	6640	
03	6690	6740	6790	6840	6889	6939	6989	7039	7089	7139	
04	7189	7239	7289	7339	7388	7438	7488	7538	7588	7638	
05	7688	7738	7788	7837	7887	7937	7987	8037	8087	8137	
06	8187	8237	8286	8336	8386	8436	8486	8536	8586	8636	
07	8685	8735	8785	8835	8885	8935	8985	9035	9084	9134	
08	9184	9234	9284	9334	9384	9434	9483	9533	9583	9633	
09	9683	9733	9783	9833	9882	9932	9982	$\bar{0}032$	$\bar{0}082$	$\bar{0}132$	
8710	940 0182	0231	0281	0331	0381	0431	0481	0531	0580	0630	
11	0680	0730	0780	0830	0880	0929	0979	1029	1079	1129	50
12	1179	1229	1278	1328	1378	1428	1478	1528	1577	1627	1 5.0
13	1677	1727	1777	1827	1877	1926	1976	2026	2076	2126	2 10.0
14	2176	2225	2275	2325	2375	2425	2475	2524	2574	2624	3 15.0
15	2674	2724	2774	2823	2873	2923	2973	3023	3073	3122	4 20.0
16	3172	3222	3272	3322	3372	3421	3471	3521	3571	3621	5 25.0
17	3670	3720	3770	3820	3870	3920	3969	4019	4069	4119	6 30.0
18	4169	4218	4268	4318	4368	4418	4468	4517	4567	4617	7 35.0
19	4667	4717	4766	4816	4866	4916	4966	5015	5065	5115	8 40.0
8720	5163	5213	5264	5314	5364	5414	5464	5513	5563	5613	9 45.0
21	5663	5713	5762	5812	5862	5912	5962	6011	6061	6111	
22	6161	6211	6260	6310	6360	6410	6460	6509	6559	6609	
23	6659	6709	6758	6808	6858	6908	6957	7007	7057	7107	
24	7157	7206	7256	7306	7356	7405	7455	7505	7555	7605	
25	7654	7704	7754	7804	7853	7903	7953	8003	8053	8102	
26	8152	8202	8252	8301	8351	8401	8451	8500	8550	8600	
27	8650	8700	8749	8799	8849	8899	8948	8998	9048	9098	
28	9147	9197	9247	9297	9346	9396	9446	9496	9545	9595	
29	9645	9695	9744	9794	9844	9894	9943	9993	$\bar{0}043$	$\bar{0}093$	
8730	941 0142	0192	0242	0292	0341	0391	0441	0491	0540	0590	
31	0640	0690	0739	0789	0839	0889	0938	0988	1038	1088	49
32	1137	1187	1237	1286	1336	1386	1436	1485	1535	1585	1 4.9
33	1635	1684	1734	1784	1834	1883	1933	1983	2032	2082	2 9.8
34	2132	2182	2231	2281	2331	2380	2430	2480	2530	2579	3 14.7
35	2629	2679	2729	2778	2828	2878	2927	2977	3027	3077	4 19.6
36	3126	3176	3226	3275	3325	3375	3425	3474	3524	3574	5 24.5
37	3623	3673	3723	3772	3822	3872	3922	3971	4021	4071	6 29.4
38	4120	4170	4220	4270	4319	4369	4419	4468	4518	4568	7 34.3
39	4617	4667	4717	4766	4816	4866	4916	4965	5015	5065	8 39.2
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41	5611	5661	5711	5760	5810	5860	5909	5959	6009	6058	
42	6108	6158	6207	6257	6307	6356	6406	6456	6505	6555	
43	6605	6654	6704	6754	6803	6853	6903	6952	7002	7052	
44	7101	7151	7201	7250	7300	7350	7399	7449	7499	7548	
45	7598	7648	7697	7747	7797	7846	7896	7946	7995	8045	
46	8095	8144	8194	8244	8293	8343	8393	8442	8492	8542	
47	8591	8641	8691	8740	8790	8840	8889	8939	8988	9038	
48	9088	9137	9187	9237	9286	9336	9386	9435	9485	9535	
49	9584	9634	9683	9733	9783	9832	9882	9932	9981	$\bar{0}031$	
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51	0577	0626	0676	0726	0775	0825	0875	0924	0974	1023	
52	1073	1123	1172	1222	1272	1321	1371	1420	1470	1520	
53	1569	1619	1669	1718	1768	1817	1867	1917	1966	2016	
54	2065	2115	2165	2214	2264	2313	2363	2413	2462	2512	
55	2562	2611	2661	2710	2760	2810	2859	2909	2958	3008	
56	3058	3107	3157	3206	3256	3306	3355	3405	3454	3504	
57	3553	3603	3653	3702	3752	3801	3851	3901	3950	4000	
58	4049	4099	4149	4198	4248	4297	4347	4397	4446	4496	
59	4545	4595	4644	4694	4744	4793	4843	4892	4942	4991	
8760	5041	5091	5140	5190	5239	5289	5339	5388	5438	5487	
61	5537	5586	5636	5686	5735	5785	5834	5884	5933	5983	50
62	6032	6082	6132	6181	6231	6280	6330	6379	6429	6479	1 5.0
63	6528	6578	6627	6677	6726	6776	6825	6875	6925	6974	2 10.0
64	7024	7075	7123	7172	7222	7271	7321	7371	7420	7470	3 15.0
65	7519	7569	7618	7668	7717	7767	7816	7866	7916	7965	4 20.0
66	8015	8064	8114	8163	8213	8262	8312	8361	8411	8461	5 25.0
67	8510	8560	8609	8659	8708	8758	8807	8857	8906	8956	6 30.0
68	9005	9055	9104	9154	9204	9253	9303	9352	9402	9451	7 35.0
69	9501	9550	9600	9649	9699	9748	9798	9847	9897	9946	8 40.0
8770	9996	$\bar{0}$045	$\bar{0}$095	$\bar{0}$144	$\bar{0}$194	$\bar{0}$244	$\bar{0}$293	$\bar{0}$343	$\bar{0}$392	$\bar{0}$442	9 45.0
71	943 0491	0541	0590	0640	0689	0739	0788	0838	0887	0937	
72	0986	1036	1085	1135	1184	1234	1283	1333	1382	1432	
73	1481	1531	1580	1630	1679	1729	1778	1828	1877	1927	
74	1976	2026	2075	2125	2174	2224	2273	2323	2372	2422	
75	2471	2521	2570	2620	2669	2719	2768	2818	2867	2917	
76	2966	3016	3065	3115	3164	3214	3263	3313	3362	3412	
77	3461	3510	3560	3609	3659	3708	3758	3807	3857	3906	
78	3956	4005	4055	4104	4154	4203	4253	4302	4352	4401	
79	4450	4500	4549	4599	4648	4698	4747	4797	4846	4896	
8780	4945	4995	5044	5094	5143	5192	5242	5291	5341	5390	
81	5440	5489	5539	5588	5638	5687	5737	5786	5835	5885	49
82	5934	5984	6033	6083	6132	6182	6231	6280	6330	6379	1 4.9
83	6429	6478	6528	6577	6627	6676	6726	6775	6824	6874	2 9.8
84	6923	6973	7022	7072	7121	7170	7220	7269	7319	7368	3 14.7
85	7418	7467	7517	7566	7615	7665	7714	7764	7813	7863	4 19.6
86	7912	7961	8011	8060	8110	8159	8209	8258	8307	8357	5 24.5
87	8406	8456	8505	8555	8604	8653	8703	8752	8802	8851	6 29.4
88	8900	8950	8999	9049	9098	9148	9197	9246	9296	9345	7 34.3
89	9395	9444	9493	9543	9592	9642	9691	9741	9790	9839	8 39.2
8790	9889	9938	9988	$\bar{0}$037	$\bar{0}$086	$\bar{0}$136	$\bar{0}$185	$\bar{0}$235	$\bar{0}$284	$\bar{0}$333	9 44.1
91	944 0383	0432	0482	0531	0580	0630	0679	0729	0778	0827	
92	0877	0926	0976	1025	1074	1124	1173	1223	1272	1321	
93	1371	1420	1470	1519	1568	1618	1667	1716	1766	1815	
94	1865	1914	1963	2013	2062	2112	2161	2210	2260	2309	
95	2358	2408	2457	2507	2556	2605	2655	2704	2753	2803	
96	2852	2902	2951	3000	3050	3099	3148	3198	3247	3297	
97	3346	3395	3445	3494	3543	3593	3642	3691	3741	3790	
98	3840	3889	3938	3988	4037	4086	4136	4185	4234	4284	
99	4333	4383	4432	4481	4531	4580	4629	4679	4728	4777	
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01	5320	5370	5419	5468	5518	5567	5616	5666	5715	5764	
02	5814	5863	5912	5962	6011	6060	6110	6159	6208	6258	
03	6307	6356	6406	6455	6504	6554	6603	6652	6702	6751	
04	6800	6850	6899	6948	6998	7047	7096	7146	7195	7244	
05	7294	7343	7392	7442	7491	7540	7590	7639	7688	7737	
06	7787	7836	7885	7935	7984	8033	8083	8132	8181	8231	
07	8280	8329	8379	8428	8477	8527	8576	8625	8674	8724	
08	8773	8822	8872	8921	8970	9020	9069	9118	9167	9217	
09	9266	9315	9363	9414	9463	9513	9562	9611	9660	9710	
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11	945 0252	0301	0351	0400	0449	0498	0548	0597	0646	0696	50
12	0745	0794	0843	0893	0942	0991	1041	1090	1139	1188	1 5.0
13	1238	1287	1336	1386	1435	1484	1533	1583	1632	1681	2 10.0
14	1730	1780	1829	1878	1928	1977	2026	2075	2125	2174	3 15.0
15	2223	2272	2322	2371	2420	2469	2519	2568	2617	2667	4 20.0
16	2716	2765	2814	2864	2913	2962	3011	3061	3110	3159	5 25.0
17	3208	3258	3307	3356	3405	3455	3504	3553	3602	3652	6 30.0
18	3701	3750	3799	3849	3898	3947	3996	4046	4095	4144	7 35.0
19	4193	4243	4292	4341	4390	4440	4489	4538	4587	4637	8 40.0
8820	4686	4735	4784	4834	4883	4932	4981	5031	5080	5129	9 45.0
21	5178	5227	5277	5326	5375	5424	5474	5523	5572	5621	
22	5671	5720	5769	5818	5867	5917	5966	6015	6064	6114	
23	6163	6212	6261	6310	6360	6409	6458	6507	6557	6606	
24	6655	6704	6753	6803	6852	6901	6950	7000	7049	7098	
25	7147	7196	7246	7295	7344	7393	7442	7492	7541	7590	
26	7639	7688	7738	7787	7836	7885	7934	7984	8033	8082	
27	8131	8180	8230	8279	8328	8377	8426	8476	8525	8574	
28	8623	8672	8722	8771	8820	8869	8918	8968	9017	9066	
29	9115	9164	9214	9263	9312	0301	0410	0459	0509	0558	
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31	946 0099	0148	0197	0246	0296	0345	0394	0443	0492	0541	49
32	0591	0640	0689	0738	0787	0836	0886	0935	0984	1033	1 4.9
33	1082	1131	1181	1230	1279	1328	1377	1426	1476	1525	2 9.8
34	1574	1623	1672	1721	1771	1820	1869	1918	1967	2016	3 14.7
35	2066	2113	2164	2213	2262	2311	2360	2410	2459	2508	4 19.6
36	2557	2606	2655	2705	2754	2803	2852	2901	2950	3000	5 24.5
37	3049	3098	3147	3196	3245	3294	3343	3393	3442	3491	6 29.4
38	3540	3589	3638	3687	3737	3786	3835	3884	3933	3982	7 34.3
39	4031	4080	4130	4179	4228	4277	4326	4375	4424	4474	8 39.2
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41	5014	5063	5112	5161	5210	5260	5309	5358	5407	5456	
42	5505	5554	5603	5652	5702	5751	5800	5849	5898	5947	
43	5996	6045	6094	6144	6193	6242	6291	6340	6389	6438	
44	6487	6536	6586	6635	6684	6733	6782	6831	6880	6929	
45	6978	7027	7077	7126	7175	7224	7273	7322	7371	7420	
46	7469	7518	7568	7617	7666	7715	7764	7813	7862	7911	
47	7960	8009	8058	8108	8157	8206	8255	8304	8353	8402	
48	8451	8500	8549	8598	8647	8697	8746	8795	8844	8893	
49	8942	8991	9040	9089	9138	9187	9236	9285	9335	9384	
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8850	946 9433	9482	9531	9580	9629	9678	9727	9776	9825	9874	
51	9923	9972	0022	0071	0120	0169	0218	0267	0316	0365	
52	947 0414	0463	0512	0561	0610	0659	0708	0757	0807	0856	
53	0905	0954	1003	1052	1101	1150	1199	1248	1297	1346	
54	1395	1444	1493	1542	1591	1640	1689	1739	1788	1837	
55	1886	1935	1984	2033	2082	2131	2180	2229	2278	2327	
56	2376	2425	2474	2523	2572	2621	2670	2719	2768	2817	
57	2866	2915	2965	3014	3063	3112	3161	3210	3259	3308	
58	3357	3406	3455	3504	3553	3602	3651	3700	3749	3798	
59	3847	3896	3945	3994	4043	4092	4141	4190	4239	4288	
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61	4827	4876	4925	4974	5023	5072	5121	5170	5219	5268	49
62	5317	5366	5415	5464	5513	5562	5611	5660	5709	5758	1 4.9
63	5807	5856	5905	5954	6003	6052	6101	6150	6199	6248	2 9.8
64	6297	6346	6395	6444	6493	6542	6591	6640	6689	6738	3 14.7
65	6787	6836	6885	6934	6983	7032	7081	7130	7179	7228	4 19.6
66	7277	7326	7375	7424	7473	7522	7571	7620	7669	7718	5 24.5
67	7767	7816	7865	7914	7963	8012	8061	8110	8159	8208	6 29.4
68	8257	8306	8355	8404	8453	8502	8551	8600	8649	8698	7 34.3
69	8747	8796	8844	8893	8942	8991	9040	9089	9138	9187	8 39.2
8870	9236	9285	9334	9383	9432	9481	9530	9579	9628	9677	9 44.1
71	9726	9775	9824	9873	9922	9971	0020	0068	0117	0166	
72	948 0215	0264	0313	0362	0411	0460	0509	0558	0607	0656	
73	0705	0754	0803	0852	0901	0950	0998	1047	1096	1145	
74	1194	1243	1292	1341	1390	1439	1488	1537	1586	1635	
75	1684	1733	1781	1830	1879	1928	1977	2026	2075	2124	
76	2173	2222	2271	2320	2369	2418	2467	2515	2564	2613	
77	2662	2711	2760	2809	2858	2907	2956	3005	3054	3102	
78	3151	3200	3249	3298	3347	3396	3445	3494	3543	3592	
79	3641	3689	3738	3787	3836	3885	3934	3983	4032	4081	
8880	4130	4179	4227	4276	4325	4374	4423	4472	4521	4570	
81	4619	4668	4717	4765	4814	4863	4912	4961	5010	5059	48
82	5108	5157	5205	5254	5303	5352	5401	5450	5499	5548	1 4.8
83	5597	5646	5694	5743	5792	5841	5890	5939	5988	6037	2 9.6
84	6085	6134	6183	6232	6281	6330	6379	6428	6477	6525	3 14.4
85	6574	6623	6672	6721	6770	6819	6868	6916	6965	7014	4 19.2
86	7063	7112	7161	7210	7259	7307	7356	7405	7454	7503	5 24.0
87	7552	7601	7650	7698	7747	7796	7845	7894	7943	7992	6 28.8
88	8040	8089	8138	8187	8236	8285	8334	8382	8431	8480	7 33.6
89	8529	8578	8627	8676	8724	8773	8822	8871	8920	8969	8 38.4
8890	9018	9066	9115	9164	9213	9262	9311	9360	9408	9457	9 43.2
91	9506	9555	9604	9653	9701	9750	9799	9848	9897	9946	
92	9995	0043	0092	0141	0190	0239	0288	0336	0385	0434	
93	949 0483	0532	0581	0629	0678	0727	0776	0825	0874	0922	
94	0971	1020	1069	1118	1167	1215	1264	1313	1362	1411	
95	1460	1508	1557	1606	1655	1704	1752	1801	1850	1899	
96	1948	1997	2045	2094	2143	2192	2241	2289	2338	2387	
97	2436	2485	2534	2582	2631	2680	2729	2778	2826	2875	
98	2924	2973	3022	3070	3119	3168	3217	3266	3314	3363	
99	3412	3461	3510	3558	3607	3656	3705	3754	3802	3851	
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02	4876	4925	4973	5022	5071	5120	5169	5217	5266	5315	
03	5364	5413	5461	5510	5559	5608	5656	5705	5754	5803	
04	5852	5900	5949	5998	6047	6095	6144	6193	6242	6290	
05	6339	6388	6437	6486	6534	6583	6632	6681	6729	6778	
06	6827	6876	6924	6973	7022	7071	7119	7168	7217	7266	
07	7315	7363	7412	7461	7510	7558	7607	7656	7705	7753	
08	7802	7851	7900	7948	7997	8046	8095	8143	8192	8241	
09	8290	8338	8387	8436	8485	8533	8582	8631	8680	8728	
8910	8777	8826	8875	8923	8972	9021	9069	9118	9167	9216	
11	9264	9313	9362	9411	9459	9508	9557	9606	9654	9703	49
12	9752	9801	9849	9898	9947	9995	0044	0093	0142	0190	1 4.9
13	950 0239	0288	0337	0385	0434	0483	0531	0580	0629	0678	2 9.8
14	0726	0775	0824	0872	0921	0970	1019	1067	1116	1165	3 14.7
15	1213	1262	1311	1360	1408	1457	1506	1554	1603	1652	4 19.6
16	1701	1749	1798	1847	1895	1944	1993	2042	2090	2139	5 24.5
17	2188	2236	2285	2334	2382	2431	2480	2529	2577	2626	6 29.4
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19	3162	3210	3259	3308	3356	3405	3454	3502	3551	3600	8 39.2
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21	4135	4184	4233	4281	4330	4379	4427	4476	4525	4574	
22	4622	4671	4720	4768	4817	4866	4914	4963	5012	5060	
23	5109	5158	5206	5255	5304	5352	5401	5450	5498	5547	
24	5596	5644	5693	5742	5790	5839	5888	5936	5985	6034	
25	6082	6131	6180	6228	6277	6326	6374	6423	6472	6520	
26	6569	6617	6666	6715	6763	6812	6861	6909	6958	7007	
27	7055	7104	7153	7201	7250	7299	7347	7396	7445	7493	
28	7542	7590	7639	7688	7736	7785	7834	7882	7931	7980	
29	8028	8077	8126	8174	8223	8271	8320	8369	8417	8466	
8930	8515	8563	8612	8660	8709	8758	8806	8855	8904	8952	
31	9001	9050	9098	9147	9195	9244	9293	9341	9390	9439	48
32	9487	9536	9584	9633	9682	9730	9779	9827	9876	9925	1 4.8
33	9973	0022	0071	0119	0168	0216	0265	0314	0362	0411	2 9.6
34	951 0459	0508	0557	0605	0654	0703	0751	0800	0848	0897	3 14.4
35	0946	0994	1043	1091	1140	1189	1237	1286	1334	1383	4 19.2
36	1432	1480	1529	1577	1626	1675	1723	1772	1820	1869	5 24.0
37	1918	1966	2015	2063	2112	2161	2209	2258	2306	2355	6 28.8
38	2404	2452	2501	2549	2598	2646	2695	2744	2792	2841	7 33.6
39	2889	2938	2987	3035	3084	3132	3181	3229	3278	3327	8 38.4
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41	3861	3910	3958	4007	4055	4104	4152	4201	4250	4298	
42	4347	4395	4444	4492	4541	4589	4638	4687	4735	4784	
43	4832	4881	4929	4978	5027	5075	5124	5172	5221	5269	
44	5318	5366	5415	5464	5512	5561	5609	5658	5706	5755	
45	5803	5852	5901	5949	5998	6046	6095	6143	6192	6240	
46	6289	6337	6386	6435	6483	6532	6580	6629	6677	6726	
47	6774	6823	6871	6920	6969	7017	7066	7114	7163	7211	
48	7260	7308	7357	7405	7454	7502	7551	7599	7648	7697	
49	7745	7794	7842	7891	7939	7988	8036	8085	8133	8182	
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52	9201	9249	9298	9346	9395	9443	9492	9540	9589	9637	
53	9686	9734	9783	9831	9880	9928	9977	$\bar{0}025$	$\bar{0}074$	$\bar{0}122$	
54	952 0171	0219	0268	0316	0365	0413	0462	0510	0559	0607	
55	0656	0704	0753	0801	0850	0898	0947	0995	1044	1092	
56	1141	1189	1238	1286	1335	1383	1432	1480	1529	1577	
57	1626	1674	1723	1771	1820	1868	1917	1965	2014	2062	
58	2111	2159	2208	2256	2305	2353	2401	2450	2498	2547	
59	2595	2644	2692	2741	2789	2838	2886	2935	2983	3032	
8960	3080	3129	3177	3226	3274	3322	3371	3419	3468	3516	
61	3565	3613	3662	3710	3759	3807	3856	3904	3952	4001	49
62	4049	4098	4146	4195	4243	4292	4340	4389	4437	4486	1 4.9
63	4534	4582	4631	4679	4728	4776	4825	4873	4922	4970	2 9.8
64	5018	5067	5115	5164	5212	5261	5309	5358	5406	5454	3 14.7
65	5503	5551	5600	5648	5697	5745	5794	5842	5890	5939	4 19.6
66	5987	6036	6084	6133	6181	6230	6278	6326	6375	6423	5 24.5
67	6472	6520	6569	6617	6665	6714	6762	6811	6859	6908	6 29.4
68	6956	7004	7053	7101	7150	7198	7247	7295	7343	7392	7 34.3
69	7440	7489	7537	7586	7634	7682	7731	7779	7828	7876	8 39.2
8970	7924	7973	8021	8070	8118	8167	8215	8263	8312	8360	9 44.1
71	8409	8457	8505	8554	8602	8651	8699	8747	8796	8844	
72	8893	8941	8989	9038	9086	9135	9183	9231	9280	9328	
73	9377	9425	9473	9522	9570	9619	9667	9715	9764	9812	
74	9861	9909	9957	$\bar{0}006$	$\bar{0}054$	$\bar{0}103$	$\bar{0}151$	$\bar{0}199$	$\bar{0}248$	$\bar{0}296$	
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76	0828	0877	0925	0974	1022	1070	1119	1167	1215	1264	
77	1312	1361	1409	1457	1506	1554	1603	1651	1699	1748	
78	1796	1844	1893	1941	1989	2038	2086	2135	2183	2231	
79	2280	2328	2376	2425	2473	2522	2570	2618	2667	2715	
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81	3247	3295	3344	3392	3440	3489	3537	3585	3634	3682	48
82	3731	3779	3827	3876	3924	3972	4021	4069	4117	4166	1 4.8
83	4214	4262	4311	4359	4407	4456	4504	4552	4601	4649	2 9.6
84	4697	4746	4794	4842	4891	4939	4987	5036	5084	5132	3 14.4
85	5181	5229	5277	5326	5374	5422	5471	5519	5567	5616	4 19.2
86	5664	5712	5761	5809	5857	5906	5954	6002	6051	6099	5 24.0
87	6147	6196	6244	6292	6341	6389	6437	6486	6534	6582	6 28.8
88	6631	6679	6727	6776	6824	6872	6921	6969	7017	7065	7 33.6
89	7114	7162	7210	7259	7307	7355	7404	7452	7500	7549	8 38.4
8990	7597	7645	7694	7742	7790	7838	7887	7935	7983	8032	9 43.2
91	8080	8128	8177	8225	8273	8321	8370	8418	8466	8515	
92	8563	8611	8660	8708	8756	8804	8853	8901	8949	8998	
93	9046	9094	9143	9191	9239	9287	9336	9384	9432	9481	
94	9529	9577	9625	9674	9722	9770	9819	9867	9915	9963	
95	954 0012	0060	0108	0157	0205	0253	0301	0350	0398	0446	
96	0494	0543	0591	0639	0688	0736	0784	0832	0881	0929	
97	0977	1025	1074	1122	1170	1219	1267	1315	1363	1412	
98	1460	1508	1556	1605	1653	1701	1749	1798	1846	1894	
99	1943	1991	2039	2087	2136	2184	2232	2280	2329	2377	
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02	3390	3438	3487	3535	3583	3631	3680	3728	3776	3824	
03	3873	3921	3969	4017	4065	4114	4162	4210	4258	4307	
04	4355	4403	4451	4500	4548	4596	4644	4692	4741	4789	
05	4837	4885	4934	4982	5030	5078	5127	5175	5223	5271	
06	5319	5368	5416	5464	5512	5561	5609	5657	5705	5753	
07	5802	5850	5898	5946	5994	6043	6091	6139	6187	6236	
08	6284	6332	6380	6428	6477	6525	6573	6621	6669	6718	
09	6766	6814	6862	6910	6959	7007	7055	7103	7152	7200	
9010	7248	7296	7344	7393	7441	7489	7537	7585	7634	7682	
11	7730	7778	7826	7874	7923	7971	8019	8067	8115	8164	49
12	8212	8260	8308	8356	8405	8453	8501	8549	8597	8646	1 4.9
13	8694	8742	8790	8838	8886	8935	8983	9031	9079	9127	2 9.8
14	9176	9224	9272	9320	9368	9416	9465	9513	9561	9609	3 14.7
15	9657	9705	9754	9802	9850	9898	9946	9995	0043	0091	4 19.6
16	955 0139	0187	0235	0284	0332	0380	0428	0476	0524	0573	5 24.5
17	0621	0669	0717	0765	0813	0862	0910	0958	1006	1054	6 29.4
18	1102	1150	1199	1247	1295	1343	1391	1439	1488	1536	7 34.3
19	1584	1632	1680	1728	1776	1825	1873	1921	1969	2017	8 39.2
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21	2547	2595	2643	2691	2739	2788	2836	2884	2932	2980	
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23	3510	3558	3606	3654	3702	3750	3798	3846	3895	3943	
24	3991	4039	4087	4135	4183	4231	4280	4328	4376	4424	
25	4472	4520	4568	4616	4665	4713	4761	4809	4857	4905	
26	4953	5001	5050	5098	5146	5194	5242	5290	5338	5386	
27	5434	5483	5531	5579	5627	5675	5723	5771	5819	5867	
28	5916	5964	6012	6060	6108	6156	6204	6252	6300	6348	
29	6397	6445	6493	6541	6589	6637	6685	6733	6781	6829	
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31	7358	7407	7455	7503	7551	7599	7647	7695	7743	7791	48
32	7839	7887	7935	7984	8032	8080	8128	8176	8224	8272	1 4.8
33	8320	8368	8416	8464	8512	8560	8609	8657	8705	8753	2 9.6
34	8801	8849	8897	8945	8993	9041	9089	9137	9185	9234	3 14.4
35	9282	9330	9378	9426	9474	9522	9570	9618	9666	9714	4 19.2
36	9762	9810	9858	9906	9954	0003	0051	0099	0147	0195	5 24.0
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38	0723	0771	0819	0868	0916	0964	1012	1060	1108	1156	7 33.6
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41	2165	2213	2261	2309	2357	2405	2453	2501	2549	2597	
42	2645	2693	2741	2789	2837	2885	2933	2981	3029	3077	
43	3125	3173	3221	3269	3317	3365	3413	3461	3509	3558	
44	3606	3654	3702	3750	3798	3846	3894	3942	3990	4038	
45	4086	4134	4182	4230	4278	4326	4374	4422	4470	4518	
46	4566	4614	4662	4710	4758	4806	4854	4902	4950	4998	
47	5046	5094	5142	5190	5238	5286	5334	5382	5430	5478	
48	5526	5574	5622	5670	5718	5766	5814	5862	5910	5958	
49	6006	6054	6102	6150	6198	6246	6294	6342	6390	6438	
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52	7445	7493	7541	7589	7637	7685	7733	7781	7829	7877	
53	7925	7973	8021	8069	8117	8165	8213	8261	8309	8357	
54	8405	8453	8501	8549	8597	8645	8693	8741	8789	8837	
55	8885	8933	8980	9028	9076	9124	9172	9220	9268	9316	
56	9364	9412	9460	9508	9556	9604	9652	9700	9748	9796	
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58	957 0323	0371	0419	0467	0515	0563	0611	0659	0707	0755	
59	0803	0851	0898	0946	0994	1042	1090	1138	1186	1234	
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61	1761	1809	1857	1905	1953	2001	2049	2097	2145	2193	48
62	2241	2289	2336	2384	2432	2480	2528	2576	2624	2672	1 4.8
63	2720	2768	2816	2864	2911	2959	3007	3055	3103	3151	2 9.6
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66	4157	4205	4253	4301	4349	4397	4445	4492	4540	4588	5 24.0
67	4636	4684	4732	4780	4828	4876	4924	4971	5019	5067	6 28.8
68	5115	5163	5211	5259	5307	5355	5402	5450	5498	5546	7 33.6
69	5594	5642	5690	5738	5786	5833	5881	5929	5977	6025	8 38.4
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71	6552	6600	6647	6695	6743	6791	6839	6887	6935	6983	
72	7030	7078	7126	7174	7222	7270	7318	7366	7413	7461	
73	7509	7557	7605	7653	7701	7748	7796	7844	7892	7940	
74	7988	8036	8083	8131	8179	8227	8275	8323	8371	8418	
75	8466	8514	8562	8610	8658	8706	8753	8801	8849	8897	
76	8945	8993	9041	9088	9136	9184	9232	9280	9328	9376	
77	9423	9471	9519	9567	9615	9663	9710	9758	9806	9854	
78	9902	9950	9997	0045	0093	0141	0189	0237	0284	0332	
79	958 0380	0428	0476	0524	0571	0619	0667	0715	0763	0811	
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81	1337	1385	1432	1480	1528	1576	1624	1672	1719	1767	47
82	1815	1863	1911	1958	2006	2054	2102	2150	2198	2245	1 4.7
83	2293	2341	2389	2437	2484	2532	2580	2628	2676	2723	2 9.4
84	2771	2819	2867	2915	2962	3010	3058	3106	3154	3202	3 14.1
85	3249	3297	3345	3393	3441	3488	3536	3584	3632	3680	4 18.8
86	3727	3775	3823	3871	3919	3966	4014	4062	4110	4157	5 23.5
87	4205	4253	4301	4349	4396	4444	4492	4540	4588	4635	6 28.2
88	4683	4731	4779	4827	4874	4922	4970	5018	5065	5113	7 32.9
89	5161	5209	5257	5304	5352	5400	5448	5495	5543	5591	8 37.6
9090	5639	5687	5734	5782	5830	5878	5925	5973	6021	6069	9 42.3
91	6117	6164	6212	6260	6308	6355	6403	6451	6499	6547	
92	6594	6642	6690	6738	6785	6833	6881	6929	6976	7024	
93	7072	7120	7167	7215	7263	7311	7358	7406	7454	7502	
94	7549	7597	7645	7693	7741	7788	7836	7884	7932	7979	
95	8027	8075	8123	8170	8218	8266	8314	8361	8409	8457	
96	8505	8552	8600	8648	8695	8743	8791	8839	8886	8934	
97	8982	9030	9077	9125	9173	9221	9268	9316	9364	9412	
98	9459	9507	9555	9603	9650	9698	9746	9793	9841	9889	
99	9937	9984	0032	0080	0128	0175	0223	0271	0318	0366	
9100	959 0414	0462	0509	0557	0605	0653	0700	0748	0796	0843	
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01	0891	0939	0987	1034	1082	1130	1177	1225	1273	1321	
02	1368	1416	1464	1511	1559	1607	1655	1702	1750	1798	
03	1845	1893	1941	1989	2036	2084	2132	2179	2227	2275	
04	2322	2370	2418	2466	2513	2561	2609	2656	2704	2752	
05	2800	2847	2895	2943	2990	3038	3086	3133	3181	3229	
06	3276	3324	3372	3420	3467	3515	3563	3610	3658	3706	
07	3753	3801	3849	3896	3944	3992	4039	4087	4135	4183	
08	4230	4278	4326	4373	4421	4469	4516	4564	4612	4659	
09	4707	4755	4802	4850	4898	4945	4993	5041	5088	5136	
9110	5184	5231	5279	5327	5374	5422	5470	5517	5565	5613	
11	5660	5708	5756	5803	5851	5899	5946	5994	6042	6089	48
12	6137	6185	6232	6280	6328	6375	6423	6471	6518	6566	1 4.8
13	6614	6661	6709	6757	6804	6852	6900	6947	6995	7043	2 9.6
14	7090	7138	7186	7233	7281	7328	7376	7424	7471	7519	3 14.4
15	7567	7614	7662	7710	7757	7805	7853	7900	7948	7996	4 19.2
16	8043	8091	8138	8186	8234	8281	8329	8377	8424	8472	5 24.0
17	8520	8567	8615	8662	8710	8758	8805	8853	8901	8948	6 28.8
18	8996	9044	9091	9139	9186	9234	9282	9329	9377	9425	7 33.6
19	9472	9520	9567	9615	9663	9710	9758	9806	9853	9901	8 38.4
9120	9948	9996	0044	0091	0139	0186	0234	0282	0329	0377	9 43.2
21	960 0425	0472	0520	0567	0615	0663	0710	0758	0805	0853	
22	0901	0948	0996	1044	1091	1139	1186	1234	1282	1329	
23	1377	1424	1472	1520	1567	1615	1662	1710	1758	1805	
24	1853	1900	1948	1996	2043	2091	2138	2186	2234	2281	
25	2329	2376	2424	2472	2519	2567	2614	2662	2709	2757	
26	2805	2852	2900	2947	2995	3043	3090	3138	3185	3233	
27	3281	3328	3376	3423	3471	3518	3566	3614	3661	3709	
28	3756	3804	3851	3899	3947	3994	4042	4089	4137	4184	
29	4232	4280	4327	4375	4422	4470	4517	4565	4613	4660	
9130	4708	4755	4803	4850	4898	4946	4993	5041	5088	5136	
31	5183	5231	5279	5326	5374	5421	5469	5516	5564	5611	47
32	5659	5707	5754	5802	5849	5897	5944	5992	6039	6087	1 4.7
33	6135	6182	6230	6277	6325	6372	6420	6467	6515	6563	2 9.4
34	6610	6658	6705	6753	6800	6848	6895	6943	6990	7038	3 14.1
35	7086	7133	7181	7228	7276	7323	7371	7418	7466	7513	4 18.8
36	7561	7608	7656	7704	7751	7799	7846	7894	7941	7989	5 23.5
37	8036	8084	8131	8179	8226	8274	8321	8369	8416	8464	6 28.2
38	8512	8559	8607	8654	8702	8749	8797	8844	8892	8939	7 32.9
39	8987	9034	9082	9129	9177	9224	9272	9319	9367	9414	8 37.6
9140	9462	9509	9557	9605	9652	9700	9747	9795	9842	9890	9 42.3
41	9937	9985	0032	0080	0127	0175	0222	0270	0317	0365	
42	961 0412	0460	0507	0555	0602	0650	0697	0745	0792	0840	
43	0887	0935	0982	1030	1077	1125	1172	1220	1267	1315	
44	1362	1410	1457	1505	1552	1600	1647	1695	1742	1790	
45	1837	1885	1932	1980	2027	2075	2122	2170	2217	2264	
46	2312	2359	2407	2454	2502	2549	2597	2644	2692	2739	
47	2787	2834	2882	2929	2977	3024	3072	3119	3167	3214	
48	3262	3309	3357	3404	3451	3499	3546	3594	3641	3689	
49	3736	3784	3831	3879	3926	3974	4021	4069	4116	4163	
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9150	961 4211	4258	4306	4353	4401	4448	4496	4543	4591	4638	
51	4686	4733	4780	4828	4875	4923	4970	5018	5065	5113	
52	5160	5208	5255	5302	5350	5397	5445	5492	5540	5587	
53	5635	5682	5730	5777	5824	5872	5919	5967	6014	6062	
54	6109	6157	6204	6251	6299	6346	6394	6441	6489	6536	
55	6583	6631	6678	6726	6773	6821	6868	6916	6963	7010	
56	7058	7105	7153	7200	7248	7295	7342	7390	7437	7485	
57	7532	7580	7627	7674	7722	7769	7817	7864	7912	7959	
58	8006	8054	8101	8149	8196	8243	8291	8338	8386	8433	
59	8481	8528	8575	8623	8670	8718	8765	8812	8860	8907	
9160	8955	9002	9050	9097	9144	9192	9239	9287	9334	9381	
61	9429	9476	9524	9571	9618	9666	9713	9761	9808	9855	48
62	9903	9950	9998	0045	0092	0140	0187	0235	0282	0329	1 4.8
63	962 0377	0424	0472	0519	0566	0614	0661	0709	0756	0803	2 9.6
64	0851	0898	0946	0993	1040	1088	1135	1183	1230	1277	3 14.4
65	1325	1372	1419	1467	1514	1562	1609	1656	1704	1751	4 19.2
66	1799	1846	1893	1941	1988	2035	2083	2130	2178	2225	5 24.0
67	2272	2320	2367	2414	2462	2509	2557	2604	2651	2699	6 28.8
68	2746	2793	2841	2888	2936	2983	3030	3078	3125	3172	7 33.6
69	3220	3267	3314	3362	3409	3457	3504	3551	3599	3646	8 38.4
9170	3693	3741	3788	3835	3883	3930	3978	4025	4072	4120	9 43.2
71	4167	4214	4262	4309	4356	4404	4451	4498	4546	4593	
72	4640	4688	4735	4783	4830	4877	4925	4972	5019	5067	
73	5114	5161	5209	5256	5303	5351	5398	5445	5493	5540	
74	5587	5635	5682	5729	5777	5824	5871	5919	5966	6013	
75	6061	6108	6155	6203	6250	6297	6345	6392	6439	6487	
76	6534	6581	6629	6676	6723	6771	6818	6865	6913	6960	
77	7007	7055	7102	7149	7197	7244	7291	7339	7386	7433	
78	7481	7528	7575	7622	7670	7717	7764	7812	7859	7906	
79	7954	8001	8048	8096	8143	8190	8238	8285	8332	8380	
9180	8427	8474	8521	8569	8616	8663	8711	8758	8805	8853	
81	8900	8947	8994	9042	9089	9136	9184	9231	9278	9326	47
82	9373	9420	9467	9515	9562	9609	9657	9704	9751	9799	1 4.7
83	9846	9893	9940	9988	0035	0082	0130	0177	0224	0271	2 9.4
84	963 0319	0366	0413	0461	0508	0555	0602	0650	0697	0744	3 14.1
85	0792	0839	0886	0933	0981	1028	1075	1123	1170	1217	4 18.8
86	1264	1312	1359	1406	1454	1501	1548	1595	1643	1690	5 23.5
87	1737	1784	1832	1879	1926	1974	2021	2068	2115	2163	6 28.2
88	2210	2257	2304	2352	2399	2446	2493	2541	2588	2635	7 32.9
89	2683	2730	2777	2824	2872	2919	2966	3013	3061	3108	8 37.6
9190	3155	3202	3250	3297	3344	3391	3439	3486	3533	3580	9 42.3
91	3628	3675	3722	3769	3817	3864	3911	3958	4006	4053	
92	4100	4147	4195	4242	4289	4336	4384	4431	4478	4525	
93	4573	4620	4667	4714	4762	4809	4856	4903	4951	4998	
94	5045	5092	5139	5187	5234	5281	5328	5376	5423	5470	
95	5517	5565	5612	5659	5706	5753	5801	5848	5895	5942	
96	5990	6037	6084	6131	6179	6226	6273	6320	6367	6415	
97	6462	6509	6556	6604	6651	6698	6745	6792	6840	6887	
98	6934	6981	7028	7076	7123	7170	7217	7265	7312	7359	
99	7406	7453	7501	7548	7595	7642	7689	7737	7784	7831	
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02	8822	8869	8917	8964	9011	9058	9105	9153	9200	9247	
03	9294	9341	9389	9436	9483	9530	9577	9625	9672	9719	
04	9766	9813	9860	9908	9955	0002	0049	0096	0144	0191	
05	964 0238	0285	0332	0379	0427	0474	0521	0568	0615	0663	
06	0710	0757	0804	0851	0898	0946	0993	1040	1087	1134	
07	1181	1229	1276	1323	1370	1417	1464	1512	1559	1606	
08	1653	1700	1747	1795	1842	1889	1936	1983	2030	2078	
09	2125	2172	2219	2266	2313	2361	2408	2455	2502	2549	
9210	2596	2643	2691	2738	2785	2832	2879	2926	2974	3021	
11	3068	3115	3162	3209	3256	3304	3351	3398	3445	3492	48
12	3539	3586	3634	3681	3728	3775	3822	3869	3916	3964	1 4.8
13	4011	4058	4105	4152	4199	4246	4294	4341	4388	4435	2 9.6
14	4482	4529	4576	4623	4671	4718	4765	4812	4859	4906	3 14.4
15	4953	5001	5048	5095	5142	5189	5236	5283	5330	5378	4 19.2
16	5425	5472	5519	5566	5613	5660	5707	5755	5802	5849	5 24.0
17	5896	5943	5990	6037	6084	6131	6179	6226	6273	6320	6 28.8
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19	6838	6885	6932	6979	7027	7074	7121	7168	7215	7262	8 38.4
9220	7309	7356	7403	7451	7498	7545	7592	7639	7686	7733	9 43.2
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22	8251	8298	8345	8392	8440	8487	8534	8581	8628	8675	
23	8722	8769	8816	8863	8910	8958	9005	9052	9099	9146	
24	9193	9240	9287	9334	9381	9428	9475	9523	9570	9617	
25	9664	9711	9758	9805	9852	9899	9946	9993	0040	0087	
26	965 0135	0182	0229	0276	0323	0370	0417	0464	0511	0558	
27	0605	0652	0699	0746	0793	0841	0888	0935	0982	1029	
28	1076	1123	1170	1217	1264	1311	1358	1405	1452	1499	
29	1546	1594	1641	1688	1735	1782	1829	1876	1923	1970	
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31	2488	2535	2582	2629	2676	2723	2770	2817	2864	2911	47
32	2958	3005	3052	3099	3146	3193	3240	3287	3334	3381	1 4.7
33	3428	3475	3522	3569	3617	3664	3711	3758	3805	3852	2 9.4
34	3899	3946	3993	4040	4087	4134	4181	4228	4275	4322	3 14.1
35	4369	4416	4463	4510	4557	4604	4651	4698	4745	4792	4 18.8
36	4839	4886	4933	4980	5027	5074	5121	5168	5215	5262	5 23.5
37	5309	5356	5403	5450	5497	5545	5592	5639	5686	5733	6 28.2
38	5780	5827	5874	5921	5968	6015	6062	6109	6156	6203	7 32.9
39	6250	6297	6344	6391	6438	6485	6532	6579	6626	6673	8 37.6
9240	6720	6767	6814	6861	6908	6955	7002	7049	7096	7143	9 42.3
41	7190	7237	7284	7331	7378	7425	7472	7519	7566	7613	
42	7660	7707	7754	7801	7848	7895	7942	7989	8036	8083	
43	8130	8177	8224	8270	8317	8364	8411	8458	8505	8552	
44	8599	8646	8693	8740	8787	8834	8881	8928	8975	9022	
45	9069	9116	9163	9210	9257	9304	9351	9398	9445	9492	
46	9539	9586	9633	9680	9727	9774	9821	9868	9915	9962	
47	966 0009	0056	0103	0149	0196	0243	0290	0337	0384	0431	
48	0478	0525	0572	0619	0666	0713	0760	0807	0854	0901	
49	0948	0995	1042	1089	1136	1183	1230	1276	1323	1370	
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51	1887	1934	1981	2028	2075	2122	2168	2215	2262	2309	
52	2356	2403	2450	2497	2544	2591	2638	2685	2732	2779	
53	2826	2873	2919	2966	3013	3060	3107	3154	3201	3248	
54	3295	3342	3389	3436	3483	3530	3577	3623	3670	3717	
55	3764	3811	3858	3905	3952	3999	4046	4093	4140	4187	
56	4233	4280	4327	4374	4421	4468	4515	4562	4609	4656	
57	4703	4750	4796	4843	4890	4937	4984	5031	5078	5125	
58	5172	5219	5266	5312	5359	5406	5453	5500	5547	5594	
59	5641	5688	5735	5782	5828	5875	5922	5969	6016	6063	
9260	6110	6157	6204	6251	6297	6344	6391	6438	6485	6532	
61	6579	6626	6673	6720	6766	6813	6860	6907	6954	7001	47
62	7048	7095	7142	7188	7235	7282	7329	7376	7423	7470	1 4.7
63	7517	7564	7610	7657	7704	7751	7798	7845	7892	7939	2 9.4
64	7985	8032	8079	8126	8173	8220	8267	8314	8360	8407	3 14.1
65	8454	8501	8548	8595	8642	8689	8735	8782	8829	8876	4 18.8
66	8923	8970	9017	9064	9110	9157	9204	9251	9298	9345	5 23.5
67	9392	9438	9485	9532	9579	9626	9673	9720	9767	9813	6 28.2
68	9860	9907	9954	0001	0048	0095	0141	0188	0235	0282	7 32.9
69	967 0329	0376	0423	0469	0516	0563	0610	0657	0704	0750	8 37.6
9270	0797	0844	0891	0938	0985	1032	1078	1125	1172	1219	9 42.3
71	1266	1313	1359	1406	1453	1500	1547	1594	1641	1687	
72	1734	1781	1828	1875	1922	1968	2015	2062	2109	2156	
73	2203	2249	2296	2343	2390	2437	2484	2530	2577	2624	
74	2671	2718	2765	2811	2858	2905	2952	2999	3046	3092	
75	3139	3186	3233	3280	3326	3373	3420	3467	3514	3561	
76	3607	3654	3701	3748	3795	3841	3888	3935	3982	4029	
77	4076	4122	4169	4216	4263	4310	4356	4403	4450	4497	
78	4544	4590	4637	4684	4731	4778	4825	4871	4918	4965	
79	5012	5059	5105	5152	5199	5246	5293	5339	5386	5433	
9280	5480	5527	5573	5620	5667	5714	5761	5807	5854	5901	
81	5948	5995	6041	6088	6135	6182	6228	6275	6322	6369	46
82	6416	6462	6509	6556	6603	6650	6696	6743	6790	6837	1 4.6
83	6884	6930	6977	7024	7071	7117	7164	7211	7258	7305	2 9.2
84	7351	7398	7445	7492	7538	7585	7632	7679	7726	7772	3 13.8
85	7819	7866	7913	7959	8006	8053	8100	8146	8193	8240	4 18.4
86	8287	8334	8380	8427	8474	8521	8567	8614	8661	8708	5 23.0
87	8754	8801	8848	8895	8942	8988	9035	9082	9129	9175	6 27.6
88	9222	9269	9316	9362	9409	9456	9503	9549	9596	9643	7 32.2
89	9690	9736	9783	9830	9877	9923	9970	0017	0064	0110	8 36.8
9290	968 0157	0204	0251	0297	0344	0391	0438	0484	0531	0578	9 41.4
91	0625	0671	0718	0765	0812	0858	0905	0952	0999	1045	
92	1092	1139	1185	1232	1279	1326	1372	1419	1466	1513	
93	1559	1606	1653	1700	1746	1793	1840	1886	1933	1980	
94	2027	2073	2120	2167	2214	2260	2307	2354	2400	2447	
95	2494	2541	2587	2634	2681	2728	2774	2821	2868	2914	
96	2961	3008	3055	3101	3148	3195	3241	3288	3335	3382	
97	3428	3475	3522	3568	3615	3662	3709	3755	3802	3849	
98	3895	3942	3989	4036	4082	4129	4176	4222	4269	4316	
99	4362	4409	4456	4503	4549	4596	4643	4689	4736	4783	
9300	4829	4876	4923	4970	5016	5063	5110	5156	5203	5250	
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9300	968 4829	4876	4923	4970	5016	5063	5110	5156	5203	5250	
01	5296	5343	5390	5437	5483	5530	5577	5623	5670	5717	
02	5763	5810	5857	5903	5950	5997	6043	6090	6137	6184	
03	6230	6277	6324	6370	6417	6464	6510	6557	6604	6650	
04	6697	6744	6790	6837	6884	6930	6977	7024	7070	7117	
05	7164	7210	7257	7304	7350	7397	7444	7490	7537	7584	
06	7630	7677	7724	7770	7817	7864	7910	7957	8004	8050	
07	8097	8144	8190	8237	8284	8330	8377	8424	8470	8517	
08	8564	8610	8657	8704	8750	8797	8844	8890	8937	8984	
09	9030	9077	9124	9170	9217	9264	9310	9357	9404	9450	
9310	9497	9543	9590	9637	9683	9730	9777	9823	9870	9917	
11	9963	$\bar{0}$010	$\bar{0}$057	$\bar{0}$103	$\bar{0}$150	$\bar{0}$196	$\bar{0}$243	$\bar{0}$290	$\bar{0}$336	$\bar{0}$383	47
12	969 0430	0476	0523	0570	0616	0663	0709	0756	0803	0849	1 4.7
13	0896	0943	0989	1036	1083	1129	1176	1222	1269	1316	2 9.4
14	1362	1409	1456	1502	1549	1595	1642	1689	1735	1782	3 14.1
15	1829	1875	1922	1968	2015	2062	2108	2155	2202	2248	4 18.8
16	2295	2341	2388	2435	2481	2528	2574	2621	2668	2714	5 23.5
17	2761	2808	2854	2901	2947	2994	3041	3087	3134	3180	6 28.2
18	3227	3274	3320	3367	3413	3460	3507	3553	3600	3647	7 32.9
19	3693	3740	3786	3833	3880	3926	3973	4019	4066	4113	8 37.6
9320	4159	4206	4252	4299	4346	4392	4439	4485	4532	4578	9 42.3
21	4625	4672	4718	4765	4811	4858	4905	4951	4998	5044	
22	5091	5138	5184	5231	5277	5324	5371	5417	5464	5510	
23	5557	5603	5650	5697	5743	5790	5836	5883	5929	5976	
24	6023	6069	6116	6162	6209	6256	6302	6349	6395	6442	
25	6488	6535	6582	6628	6675	6721	6768	6814	6861	6908	
26	6954	7001	7047	7094	7140	7187	7234	7280	7327	7373	
27	7420	7406	7513	7559	7606	7653	7699	7746	7793	7839	
28	7885	7932	7978	8025	8072	8118	8165	8211	8258	8304	
29	8351	8397	8444	8491	8537	8584	8630	8677	8723	8770	
9330	8816	8863	8910	8956	9003	9049	9096	9142	9189	9235	
31	9282	9328	9375	9422	9468	9515	9561	9608	9654	9701	46
32	9747	9794	9840	9887	9933	9980	$\bar{0}$027	$\bar{0}$073	$\bar{0}$120	$\bar{0}$166	1 4.6
33	970 0213	0259	0306	0352	0399	0445	0492	0538	0585	0631	2 9.2
34	0678	0724	0771	0818	0864	0911	0957	1004	1050	1097	3 13.8
35	1143	1190	1236	1283	1329	1376	1422	1469	1515	1562	4 18.4
36	1608	1655	1701	1748	1794	1841	1888	1934	1981	2027	5 23.0
37	2074	2120	2167	2213	2260	2306	2353	2399	2446	2492	6 27.6
38	2539	2585	2632	2678	2725	2771	2818	2864	2911	2957	7 32.2
39	3004	3050	3097	3143	3190	3236	3283	3329	3376	3422	8 36.8
9340	3469	3515	3562	3608	3655	3701	3748	3794	3841	3887	9 41.4
41	3934	3980	4027	4073	4120	4166	4213	4259	4306	4352	
42	4399	4445	4492	4538	4585	4631	4678	4724	4771	4817	
43	4863	4910	4956	5003	5049	5096	5142	5189	5235	5282	
44	5328	5375	5421	5468	5514	5561	5607	5654	5700	5747	
45	5793	5840	5886	5932	5979	6025	6072	6118	6165	6211	
46	6258	6304	6351	6397	6444	6490	6537	6583	6629	6676	
47	6722	6769	6815	6862	6908	6955	7001	7048	7094	7141	
48	7187	7233	7280	7326	7373	7419	7466	7512	7559	7605	
49	7652	7698	7745	7791	7837	7884	7930	7977	8023	8070	
9350	8116	8163	8209	8255	8302	8348	8395	8441	8488	8534	
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52	9045	9091	9138	9184	9231	9277	9324	9370	9416	9463	
53	9509	9556	9602	9649	9695	9742	9788	9834	9881	9927	
54	9974	0020	0067	0113	0159	0206	0252	0299	0345	0391	
55	971 0438	0484	0531	0577	0624	0670	0716	0763	0809	0856	
56	0902	0949	0995	1041	1088	1134	1181	1227	1273	1320	
57	1366	1413	1459	1506	1552	1598	1645	1691	1738	1784	
58	1830	1877	1923	1970	2016	2062	2109	2155	2202	2248	
59	2294	2341	2387	2434	2480	2526	2573	2619	2666	2712	
9360	2758	2805	2851	2898	2944	2990	3037	3083	3130	3176	
61	3222	3269	3315	3362	3408	3454	3501	3547	3594	3640	47
62	3686	3733	3779	3826	3872	3918	3965	4011	4057	4104	1 4.7
63	4150	4197	4243	4289	4336	4382	4429	4475	4521	4568	2 9.4
64	4614	4660	4707	4753	4800	4846	4892	4939	4985	5031	3 14.1
65	5078	5124	5171	5217	5263	5310	5356	5402	5449	5495	4 18.8
66	5542	5588	5634	5681	5727	5773	5820	5866	5912	5959	5 23.5
67	6005	6052	6098	6144	6191	6237	6283	6330	6376	6422	6 28.2
68	6469	6515	6562	6608	6654	6701	6747	6793	6840	6886	7 32.9
69	6932	6979	7025	7071	7118	7164	7211	7257	7303	7350	8 37.6
9370	7396	7442	7489	7535	7581	7628	7674	7720	7767	7813	9 42.3
71	7859	7906	7952	7998	8045	8091	8137	8184	8230	8276	
72	8323	8369	8415	8462	8508	8554	8601	8647	8694	8740	
73	8786	8833	8879	8925	8972	9018	9064	9111	9157	9203	
74	9249	9296	9342	9388	9435	9481	9527	9574	9620	9666	
75	9713	9759	9805	9852	9898	9944	9991	0037	0083	0130	
76	972 0176	0222	0269	0315	0361	0408	0454	0500	0547	0593	
77	0639	0685	0732	0778	0824	0871	0917	0963	1010	1056	
78	1102	1149	1195	1241	1288	1334	1380	1426	1473	1519	
79	1565	1612	1658	1704	1751	1797	1843	1889	1936	1982	
9380	2028	2075	2121	2167	2214	2260	2306	2352	2399	2445	
81	2491	2538	2584	2630	2677	2723	2769	2815	2862	2908	46
82	2954	3001	3047	3093	3139	3186	3232	3278	3325	3371	1 4.6
83	3417	3463	3510	3556	3602	3649	3695	3741	3787	3834	2 9.2
84	3880	3926	3973	4019	4065	4111	4158	4204	4250	4296	3 13.8
85	4343	4389	4435	4482	4528	4574	4620	4667	4713	4759	4 18.4
86	4805	4852	4898	4944	4991	5037	5083	5129	5176	5222	5 23.0
87	5268	5314	5361	5407	5453	5500	5546	5592	5638	5685	6 27.6
88	5731	5777	5823	5870	5916	5962	6008	6055	6101	6147	7 32.2
89	6193	6240	6286	6332	6378	6425	6471	6517	6563	6610	8 36.8
9390	6656	6702	6748	6795	6841	6887	6933	6980	7026	7072	9 41.4
91	7118	7165	7211	7257	7303	7350	7396	7442	7488	7535	
92	7581	7627	7673	7720	7766	7812	7858	7905	7951	7997	
93	8043	8089	8136	8182	8228	8274	8321	8367	8413	8459	
94	8506	8552	8598	8644	8690	8737	8783	8829	8875	8922	
95	8968	9014	9060	9107	9153	9199	9245	9291	9338	9384	
96	9430	9476	9523	9569	9615	9661	9707	9754	9800	9846	
97	9892	9938	9985	0031	0077	0123	0170	0216	0262	0308	
98	973 0354	0401	0447	0493	0539	0585	0632	0678	0724	0770	
99	0816	0863	0909	0955	1001	1048	1094	1140	1186	1232	
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01	1741	1787	1833	1879	1925	1972	2018	2064	2110	2156	
02	2202	2249	2295	2341	2387	2433	2480	2526	2572	2618	
03	2664	2711	2757	2803	2849	2895	2941	2988	3034	3080	
04	3126	3172	3219	3265	3311	3357	3403	3449	3496	3542	
05	3588	3634	3680	3727	3773	3819	3865	3911	3957	4004	
06	4050	4096	4142	4188	4234	4281	4327	4373	4419	4465	
07	4511	4558	4604	4650	4696	4742	4788	4835	4881	4927	
08	4973	5019	5065	5112	5158	5204	5250	5296	5342	5389	
09	5435	5481	5527	5573	5619	5665	5712	5758	5804	5850	
9410	5896	5942	5989	6035	6081	6127	6173	6219	6265	6312	
11	6358	6404	6450	6496	6542	6588	6635	6681	6727	6773	47
12	6819	6865	6911	6958	7004	7050	7096	7142	7188	7234	1 4.7
13	7281	7327	7373	7419	7465	7511	7557	7604	7650	7696	2 9.4
14	7742	7788	7834	7880	7926	7973	8019	8065	8111	8157	3 14.1
15	8203	8249	8295	8342	8388	8434	8480	8526	8572	8618	4 18.8
16	8664	8711	8757	8803	8849	8895	8941	8987	9033	9080	5 23.5
17	9126	9172	9218	9264	9310	9356	9402	9449	9495	9541	6 28.2
18	9587	9633	9679	9725	9771	9817	9864	9910	9956	0002	7 32.9
19	974 0048	0094	0140	0186	0232	0279	0325	0371	0417	0463	8 37.6
9420	0509	0555	0601	0647	0693	0740	0786	0832	0878	0924	9 42.3
21	0970	1016	1062	1108	1154	1201	1247	1293	1339	1385	
22	1431	1477	1523	1569	1615	1661	1708	1754	1800	1846	
23	1892	1938	1984	2030	2076	2122	2168	2215	2261	2307	
24	2353	2399	2445	2491	2537	2583	2629	2675	2721	2768	
25	2814	2860	2906	2952	2998	3044	3090	3136	3182	3228	
26	3274	3320	3367	3413	3459	3505	3551	3597	3643	3689	
27	3735	3781	3827	3873	3919	3965	4011	4058	4104	4150	
28	4196	4242	4288	4334	4380	4426	4472	4518	4564	4610	
29	4656	4702	4748	4795	4841	4887	4933	4979	5025	5071	
9430	5117	5163	5209	5255	5301	5347	5393	5439	5485	5531	
31	5577	5623	5670	5716	5762	5808	5854	5900	5946	5992	46
32	6038	6084	6130	6176	6222	6268	6314	6360	6406	6452	1 4.6
33	6498	6544	6590	6636	6683	6729	6775	6821	6867	6913	2 9.2
34	6959	7005	7051	7097	7143	7189	7235	7281	7327	7373	3 13.8
35	7419	7465	7511	7557	7603	7649	7695	7741	7787	7833	4 18.4
36	7879	7925	7971	8017	8063	8109	8155	8201	8248	8294	5 23.0
37	8340	8386	8432	8478	8524	8570	8616	8662	8708	8754	6 27.6
38	8800	8846	8892	8938	8984	9030	9076	9122	9168	9214	7 32.2
39	9260	9306	9352	9398	9444	9490	9536	9582	9628	9674	8 36.8
9440	9720	9766	9812	9858	9904	9950	9996	0042	0088	0134	9 41.4
41	975 0180	0226	0272	0318	0364	0410	0456	0502	0548	0594	
42	0640	0686	0732	0778	0824	0870	0916	0962	1008	1054	
43	1100	1146	1192	1238	1284	1330	1376	1422	1468	1514	
44	1560	1606	1652	1698	1744	1790	1836	1882	1928	1974	
45	2020	2066	2112	2158	2204	2250	2296	2341	2387	2433	
46	2479	2525	2571	2617	2663	2709	2755	2801	2847	2893	
47	2939	2985	3031	3077	3123	3169	3215	3261	3307	3353	
48	3399	3445	3491	3537	3583	3629	3675	3721	3767	3813	
49	3858	3904	3950	3996	4042	4088	4134	4180	4226	4272	
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9450	975 4318	4364	4410	4456	4502	4548	4594	4640	4686	4732	
51	4778	4824	4870	4915	4961	5007	5053	5099	5145	5191	
52	5237	5283	5329	5375	5421	5467	5513	5559	5605	5651	
53	5697	5743	5788	5834	5880	5926	5972	6018	6064	6110	
54	6156	6202	6248	6294	6340	6386	6432	6478	6523	6569	
55	6615	6661	6707	6753	6799	6845	6891	6937	6983	7029	
56	7075	7121	7166	7212	7258	7304	7350	7396	7442	7488	
57	7534	7580	7626	7672	7718	7763	7809	7855	7901	7947	
58	7993	8039	8085	8131	8177	8223	8269	8315	8360	8406	
59	8452	8498	8544	8590	8636	8682	8728	8774	8820	8865	
9460	8911	8957	9003	9049	9095	9141	9187	9233	9279	9325	
61	9370	9416	9462	9508	9554	9600	9646	9692	9738	9784	46
62	9829	9875	9921	9967	0013	0059	0105	0151	0197	0243	1 4.6
63	976 0288	0334	0380	0426	0472	0518	0564	0610	0656	0701	2 9.2
64	0747	0793	0839	0885	0931	0977	1023	1069	1114	1160	3 13.8
65	1206	1252	1298	1344	1390	1436	1481	1527	1573	1619	4 18.4
66	1665	1711	1757	1803	1849	1894	1940	1986	2032	2078	5 23.0
67	2124	2170	2216	2261	2307	2353	2399	2445	2491	2537	6 27.6
68	2582	2628	2674	2720	2766	2812	2858	2904	2949	2995	7 32.2
69	3041	3087	3133	3179	3225	3270	3316	3362	3408	3454	8 36.8
9470	3500	3546	3592	3637	3683	3729	3775	3821	3867	3913	9 41.4
71	3958	4004	4050	4096	4142	4188	4233	4279	4325	4371	
72	4417	4463	4509	4554	4600	4646	4692	4738	4784	4830	
73	4875	4921	4967	5013	5059	5105	5150	5196	5242	5288	
74	5334	5380	5425	5471	5517	5563	5609	5655	5701	5746	
75	5792	5838	5884	5930	5976	6021	6067	6113	6159	6205	
76	6251	6296	6342	6388	6434	6480	6525	6571	6617	6663	
77	6709	6755	6800	6846	6892	6938	6984	7030	7075	7121	
78	7167	7213	7259	7305	7350	7396	7442	7488	7534	7579	
79	7625	7671	7717	7763	7808	7854	7900	7946	7992	8038	
9480	8083	8129	8175	8221	8267	8312	8358	8404	8450	8496	
81	8541	8587	8633	8679	8725	8770	8816	8862	8908	8954	45
82	9000	9045	9091	9137	9183	9229	9274	9320	9366	9412	1 4.5
83	9458	9503	9549	9595	9641	9686	9732	9778	9824	9870	2 9.0
84	9915	9961	0007	0053	0099	0144	0190	0236	0282	0328	3 13.5
85	977 0373	0419	0465	0511	0556	0602	0648	0694	0740	0785	4 18.0
86	0831	0877	0923	0969	1014	1060	1106	1152	1197	1243	5 22.5
87	1289	1335	1381	1426	1472	1518	1564	1609	1655	1701	6 27.0
88	1747	1793	1838	1884	1930	1976	2021	2067	2113	2159	7 31.5
89	2204	2250	2296	2342	2388	2433	2479	2525	2571	2616	8 36.0
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91	3120	3165	3211	3257	3303	3349	3394	3440	3486	3532	
92	3577	3623	3669	3715	3760	3806	3852	3898	3943	3989	
93	4035	4081	4126	4172	4218	4264	4309	4355	4401	4447	
94	4492	4538	4584	4630	4675	4721	4767	4812	4858	4904	
95	4950	4995	5041	5087	5133	5178	5224	5270	5316	5361	
96	5407	5453	5499	5544	5590	5636	5681	5727	5773	5819	
97	5864	5910	5956	6002	6047	6093	6139	6184	6230	6276	
98	6322	6367	6413	6459	6505	6550	6596	6642	6687	6733	
99	6779	6825	6870	6916	6962	7007	7053	7099	7145	7190	
9500	7236	7282	7327	7373	7419	7465	7510	7556	7602	7647	
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9500	977 7236	7282	7327	7373	7419	7465	7510	7556	7602	7647	
01	7693	7739	7785	7830	7876	7922	7967	8013	8059	8105	
02	8150	8196	8242	8287	8333	8379	8424	8470	8516	8562	
03	8607	8653	8699	8744	8790	8836	8881	8927	8973	9019	
04	9064	9110	9156	9201	9247	9293	9338	9384	9430	9476	
05	9521	9567	9613	9658	9704	9750	9795	9841	9887	9932	
06	9978	0024	0069	0115	0161	0207	0252	0298	0344	0389	
07	978 0435	0481	0526	0572	0618	0663	0709	0755	0800	0846	
08	0892	0937	0983	1029	1074	1120	1166	1211	1257	1303	
09	1348	1394	1440	1485	1531	1577	1622	1668	1714	1760	
9510	1805	1851	1897	1942	1988	2033	2079	2125	2170	2216	
11	2262	2307	2353	2399	2444	2490	2536	2581	2627	2673	46
12	2718	2764	2810	2855	2901	2947	2992	3038	3084	3129	1 4.6
13	3175	3221	3266	3312	3358	3403	3449	3495	3540	3586	2 9.2
14	3631	3677	3723	3768	3814	3860	3905	3951	3997	4042	3 13.8
15	4088	4134	4179	4225	4270	4316	4362	4407	4453	4499	4 18.4
16	4544	4590	4636	4681	4727	4773	4818	4864	4909	4955	5 23.0
17	5001	5046	5092	5138	5183	5229	5274	5320	5366	5411	6 27.6
18	5457	5503	5548	5594	5640	5685	5731	5776	5822	5868	7 32.2
19	5913	5959	6005	6050	6096	6141	6187	6233	6278	6324	8 36.8
9520	6369	6415	6461	6506	6552	6598	6643	6689	6734	6780	9 41.4
21	6826	6871	6917	6962	7008	7054	7099	7145	7191	7236	
22	7282	7327	7373	7419	7464	7510	7555	7601	7647	7692	
23	7738	7783	7829	7875	7920	7966	8011	8057	8103	8148	
24	8194	8239	8285	8331	8376	8422	8467	8513	8559	8604	
25	8650	8695	8741	8787	8832	8878	8923	8969	9015	9060	
26	9106	9151	9197	9243	9288	9334	9379	9425	9470	9516	
27	9562	9607	9653	9698	9744	9790	9835	9881	9926	9972	
28	979 0017	0063	0109	0154	0200	0245	0291	0337	0382	0428	
29	0473	0519	0564	0610	0656	0701	0747	0792	0838	0883	
9530	0929	0975	1020	1066	1111	1157	1202	1248	1294	1339	
31	1385	1430	1476	1521	1567	1613	1658	1704	1749	1795	45
32	1840	1886	1931	1977	2023	2068	2114	2159	2205	2250	1 4.5
33	2296	2341	2387	2433	2478	2524	2569	2615	2660	2706	2 9.0
34	2751	2797	2843	2888	2934	2979	3025	3070	3116	3161	3 13.5
35	3207	3253	3298	3344	3389	3435	3480	3526	3571	3617	4 18.0
36	3662	3708	3754	3799	3845	3890	3936	3981	4027	4072	5 22.5
37	4118	4163	4209	4254	4300	4346	4391	4437	4482	4528	6 27.0
38	4573	4619	4664	4710	4755	4801	4846	4892	4937	4983	7 31.5
39	5028	5074	5120	5165	5211	5256	5302	5347	5393	5438	8 36.0
9540	5484	5529	5575	5620	5666	5711	5757	5802	5848	5893	9 40.5
41	5939	5984	6030	6076	6121	6167	6212	6258	6303	6349	
42	6394	6440	6485	6531	6576	6622	6667	6713	6758	6804	
43	6849	6895	6940	6986	7031	7077	7122	7168	7213	7259	
44	7304	7350	7395	7441	7486	7532	7577	7623	7668	7714	
45	7759	7805	7850	7896	7941	7987	8032	8078	8123	8169	
46	8214	8260	8305	8351	8396	8442	8487	8533	8578	8624	
47	8669	8715	8760	8806	8851	8897	8942	8988	9033	9079	
48	9124	9170	9215	9261	9306	9352	9397	9442	9488	9533	
49	9579	9624	9670	9715	9761	9806	9852	9897	9943	9988	
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52	0943	0989	1034	1080	1125	1170	1216	1261	1307	1352	
53	1398	1443	1489	1534	1580	1625	1671	1716	1761	1807	
54	1852	1898	1943	1989	2034	2080	2125	2171	2216	2261	
55	2307	2352	2398	2443	2489	2534	2580	2625	2671	2716	
56	2761	2807	2852	2898	2943	2989	3034	3080	3125	3170	
57	3216	3261	3307	3352	3398	3443	3489	3534	3579	3625	
58	3670	3716	3761	3807	3852	3897	3943	3988	4034	4079	
59	4125	4170	4215	4261	4306	4352	4397	4443	4488	4533	
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61	5033	5079	5124	5169	5215	5260	5306	5351	5397	5442	46
62	5487	5533	5578	5624	5669	5714	5760	5805	5851	5896	1 4.6
63	5942	5987	6032	6078	6123	6169	6214	6259	6305	6350	2 9.2
64	6396	6441	6486	6532	6577	6623	6668	6714	6759	6804	3 13.8
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66	7304	7349	7395	7440	7485	7531	7576	7622	7667	7712	5 23.0
67	7758	7803	7849	7894	7939	7985	8030	8075	8121	8166	6 27.6
68	8212	8257	8302	8348	8393	8439	8484	8529	8575	8620	7 32.2
69	8666	8711	8756	8802	8847	8892	8938	8983	9029	9074	8 36.8
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71	9573	9619	9664	9709	9755	9800	9845	9891	9936	9982	
72	981 0027	0072	0118	0163	0208	0254	0299	0344	0390	0435	
73	0481	0526	0571	0617	0662	0707	0753	0798	0844	0889	
74	0934	0980	1025	1070	1116	1161	1206	1252	1297	1342	
75	1388	1433	1479	1524	1569	1615	1660	1705	1751	1796	
76	1841	1887	1932	1977	2023	2068	2113	2159	2204	2250	
77	2295	2340	2386	2431	2476	2522	2567	2612	2658	2703	
78	2748	2794	2839	2884	2930	2975	3020	3066	3111	3156	
79	3202	3247	3292	3338	3383	3428	3474	3519	3564	3610	
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81	4108	4154	4199	4244	4290	4335	4380	4426	4471	4516	45
82	4562	4607	4652	4698	4743	4788	4834	4879	4924	4970	1 4.5
83	5015	5060	5106	5151	5196	5241	5287	5332	5377	5423	2 9.0
84	5468	5513	5559	5604	5649	5695	5740	5785	5831	5876	3 13.5
85	5921	5966	6012	6057	6102	6148	6193	6238	6284	6329	4 18.0
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87	6827	6873	6918	6963	7008	7054	7099	7144	7190	7235	6 27.0
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89	7733	7778	7824	7869	7914	7960	8005	8050	8095	8141	8 36.0
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91	8639	8684	8729	8775	8820	8865	8911	8956	9001	9046	
92	9092	9137	9182	9228	9273	9318	9363	9409	9454	9499	
93	9544	9590	9635	9680	9726	9771	9816	9861	9907	9952	
94	9997	0042	0088	0133	0178	0223	0269	0314	0359	0405	
95	982 0450	0495	0540	0586	0631	0676	0721	0767	0812	0857	
96	0902	0948	0993	1038	1083	1129	1174	1219	1264	1310	
97	1355	1400	1445	1491	1536	1581	1626	1672	1717	1762	
98	1807	1853	1898	1943	1988	2034	2079	2124	2169	2215	
99	2260	2305	2350	2396	2441	2486	2531	2577	2622	2667	
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02	3617	3662	3707	3753	3798	3843	3888	3934	3979	4024	
03	4069	4115	4160	4205	4250	4295	4341	4386	4431	4476	
04	4522	4567	4612	4657	4702	4748	4793	4838	4883	4928	
05	4974	5019	5064	5109	5155	5200	5245	5290	5335	5381	
06	5426	5471	5516	5561	5607	5652	5697	5742	5787	5833	
07	5878	5923	5968	6014	6059	6104	6149	6194	6240	6285	
08	6330	6375	6420	6466	6511	6556	6601	6646	6692	6737	
09	6782	6827	6872	6918	6963	7008	7053	7098	7143	7189	
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11	7686	7731	7776	7821	7867	7912	7957	8002	8047	8092	46
12	8138	8183	8228	8273	8318	8364	8409	8454	8499	8544	1 4.6
13	8589	8635	8680	8725	8770	8815	8860	8906	8951	8996	2 9.2
14	9041	9086	9132	9177	9222	9267	9312	9357	9403	9448	3 13.8
15	9493	9538	9583	9628	9674	9719	9764	9809	9854	9899	4 18.4
16	9945	9990	0035	0080	0125	0170	0216	0261	0306	0351	5 23.0
17	983 0396	0441	0486	0532	0577	0622	0667	0712	0757	0803	6 27.6
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19	1299	1344	1390	1435	1480	1525	1570	1615	1660	1706	8 36.8
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22	2654	2699	2744	2789	2834	2879	2924	2969	3015	3060	
23	3105	3150	3195	3240	3285	3331	3376	3421	3466	3511	
24	3556	3601	3646	3692	3737	3782	3827	3872	3917	3962	
25	4007	4053	4098	4143	4188	4233	4278	4323	4368	4413	
26	4459	4504	4549	4594	4639	4684	4729	4774	4819	4865	
27	4910	4955	5000	5045	5090	5135	5180	5225	5271	5316	
28	5361	5406	5451	5496	5541	5586	5631	5677	5722	5767	
29	5812	5857	5902	5947	5992	6037	6082	6128	6173	6218	
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32	7165	7210	7255	7300	7345	7390	7435	7480	7525	7571	1 4.5
33	7616	7661	7706	7751	7796	7841	7886	7931	7976	8021	2 9.0
34	8066	8111	8157	8202	8247	8292	8337	8382	8427	8472	3 13.5
35	8517	8562	8607	8652	8697	8743	8788	8833	8878	8923	4 18.0
36	8968	9013	9058	9103	9148	9193	9238	9283	9328	9374	5 22.5
37	9419	9464	9509	9554	9599	9644	9689	9734	9779	9824	6 27.0
38	9869	9914	9959	0004	0049	0095	0140	0185	0230	0275	7 31.5
39	984 0320	0365	0410	0455	0500	0545	0590	0635	0680	0725	8 36.0
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41	1221	1266	1311	1356	1401	1446	1491	1536	1581	1626	
42	1671	1716	1761	1806	1851	1896	1942	1987	2032	2077	
43	2122	2167	2212	2257	2302	2347	2392	2437	2482	2527	
44	2572	2617	2662	2707	2752	2797	2842	2887	2932	2977	
45	3022	3067	3112	3157	3202	3247	3292	3338	3383	3428	
46	3473	3518	3563	3608	3653	3698	3743	3788	3833	3878	
47	3923	3968	4013	4058	4103	4148	4193	4238	4283	4328	
48	4373	4418	4463	4508	4553	4598	4643	4688	4733	4778	
49	4823	4868	4913	4958	5003	5048	5093	5138	5183	5228	
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52	6173	6218	6263	6308	6353	6398	6443	6488	6533	6578	
53	6623	6668	6713	6758	6803	6848	6893	6938	6983	7028	
54	7073	7118	7163	7208	7253	7298	7343	7388	7433	7478	
55	7523	7568	7613	7658	7703	7748	7793	7838	7883	7928	
56	7973	8018	8063	8107	8152	8197	8242	8287	8332	8377	
57	8422	8467	8512	8557	8602	8647	8692	8737	8782	8827	
58	8872	8917	8962	9007	9052	9097	9142	9187	9232	9277	
59	9322	9367	9412	9457	9502	9546	9591	9636	9681	9726	
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61	985 0221	0266	0311	0356	0401	0446	0491	0535	0580	0625	45
62	0670	0715	0760	0805	0850	0895	0940	0985	1030	1075	1 4.5
63	1120	1165	1210	1255	1300	1345	1389	1434	1479	1524	2 9.0
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65	2019	2064	2108	2153	2198	2243	2288	2333	2378	2423	4 18.0
66	2468	2513	2558	2603	2648	2693	2737	2782	2827	2872	5 22.5
67	2917	2962	3007	3052	3097	3142	3187	3232	3277	3321	6 27.0
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69	3816	3861	3905	3950	3995	4040	4085	4130	4175	4220	8 36.0
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71	4714	4759	4804	4849	4893	4938	4983	5028	5073	5118	
72	5163	5208	5253	5298	5342	5387	5432	5477	5522	5567	
73	5612	5657	5702	5747	5791	5836	5881	5926	5971	6016	
74	6061	6106	6151	6196	6240	6285	6330	6375	6420	6465	
75	6510	6555	6600	6644	6689	6734	6779	6824	6869	6914	
76	6959	7003	7048	7093	7138	7183	7228	7273	7318	7363	
77	7407	7452	7497	7542	7587	7632	7677	7722	7766	7811	
78	7856	7901	7946	7991	8036	8081	8125	8170	8215	8260	
79	8305	8350	8395	8440	8484	8529	8574	8619	8664	8709	
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81	9202	9247	9292	9337	9382	9426	9471	9516	9561	9606	44
82	9651	9696	9740	9785	9830	9875	9920	9965	ō010	ō054	1 4.4
83	986 0099	0144	0189	0234	0279	0324	0368	0413	0458	0503	2 8.8
84	0548	0593	0637	0682	0727	0772	0817	0862	0907	0951	3 13.2
85	0996	1041	1086	1131	1176	1220	1265	1310	1355	1400	4 17.6
86	1445	1489	1534	1579	1624	1669	1714	1758	1803	1848	5 22.0
87	1893	1938	1983	2027	2072	2117	2162	2207	2252	2296	6 26.4
88	2341	2386	2431	2476	2521	2565	2610	2655	2700	2745	7 30.8
89	2790	2834	2879	2924	2969	3014	3058	3103	3148	3193	8 35.2
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91	3686	3731	3776	3820	3865	3910	3955	4000	4044	4089	
92	4134	4179	4224	4268	4313	4358	4403	4448	4493	4537	
93	4582	4627	4672	4717	4761	4806	4851	4896	4941	4985	
94	5030	5075	5120	5165	5209	5254	5299	5344	5389	5433	
95	5478	5523	5568	5613	5657	5702	5747	5792	5836	5881	
96	5926	5971	6016	6060	6105	6150	6195	6240	6284	6329	
97	6374	6419	6464	6508	6553	6598	6643	6687	6732	6777	
98	6822	6867	6911	6956	7001	7046	7090	7135	7180	7225	
99	7270	7314	7359	7404	7449	7493	7538	7583	7628	7673	
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02	8613	8657	8702	8747	8792	8837	8881	8926	8971	9016	
03	9060	9105	9150	9195	9239	9284	9329	9374	9418	9463	
04	9508	9553	9597	9642	9687	9732	9776	9821	9866	9911	
05	9955	0000	0045	0090	0134	0179	0224	0269	0313	0358	
06	987 0403	0448	0492	0537	0582	0627	0671	0716	0761	0806	
07	0850	0895	0940	0985	1029	1074	1119	1163	1208	1253	
08	1298	1342	1387	1432	1477	1521	1566	1611	1656	1700	
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13	3534	3579	3623	3668	3713	3757	3802	3847	3892	3936	2 9.0
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15	4428	4473	4517	4562	4607	4652	4696	4741	4786	4830	4 18.0
16	4875	4920	4964	5009	5054	5099	5143	5188	5233	5277	5 22.5
17	5322	5367	5411	5456	5501	5545	5590	5635	5680	5724	6 27.0
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19	6216	6261	6305	6350	6395	6439	6484	6529	6573	6618	8 36.0
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21	7109	7154	7199	7243	7288	7333	7377	7422	7467	7511	
22	7556	7601	7646	7690	7735	7780	7824	7869	7914	7958	
23	8003	8048	8092	8137	8182	8226	8271	8316	8360	8405	
24	8450	8494	8539	8583	8628	8673	8717	8762	8807	8851	
25	8896	8941	8985	9030	9075	9119	9164	9209	9253	9298	
26	9343	9387	9432	9477	9521	9566	9611	9655	9700	9745	
27	9789	9834	9878	9923	9968	0012	0057	0102	0146	0191	
28	988 0236	0280	0325	0370	0414	0459	0503	0548	0593	0637	
29	0682	0727	0771	0816	0861	0905	0950	0994	1039	1084	
9730	1128	1173	1218	1262	1307	1352	1396	1441	1485	1530	
31	1575	1619	1664	1709	1753	1798	1842	1887	1932	1976	44
32	2021	2066	2110	2155	2200	2244	2289	2333	2378	2423	1 4.4
33	2467	2512	2556	2601	2646	2690	2735	2780	2824	2869	2 8.8
34	2913	2958	3003	3047	3092	3136	3181	3226	3270	3315	3 13.2
35	3360	3404	3449	3493	3538	3583	3627	3672	3716	3761	4 17.6
36	3806	3850	3895	3939	3984	4029	4073	4118	4162	4207	5 22.0
37	4252	4296	4341	4386	4430	4475	4519	4564	4609	4653	6 26.4
38	4698	4742	4787	4831	4876	4921	4965	5010	5054	5099	7 30.8
39	5144	5188	5233	5277	5322	5367	5411	5456	5500	5545	8 35.2
9740	5590	5634	5679	5723	5768	5813	5857	5902	5946	5991	9 39.6
41	6035	6080	6125	6169	6214	6258	6303	6348	6392	6437	
42	6481	6526	6570	6615	6660	6704	6749	6793	6838	6882	
43	6927	6972	7016	7061	7105	7150	7194	7239	7284	7328	
44	7373	7417	7462	7506	7551	7596	7640	7685	7729	7774	
45	7818	7863	7908	7952	7997	8041	8086	8130	8175	8220	
46	8264	8309	8353	8398	8442	8487	8531	8576	8621	8665	
47	8710	8754	8799	8843	8888	8932	8977	9022	9066	9111	
48	9155	9200	9244	9289	9333	9378	9423	9467	9512	9556	
49	9601	9645	9690	9734	9779	9823	9868	9913	9957	0002	
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52	0937	0981	1026	1071	1115	1160	1204	1249	1293	1338	
53	1382	1427	1471	1516	1560	1605	1649	1694	1738	1783	
54	1828	1872	1917	1961	2006	2050	2095	2139	2184	2228	
55	2273	2317	2362	2406	2451	2495	2540	2584	2629	2673	
56	2718	2762	2807	2851	2896	2940	2985	3030	3074	3119	
57	3163	3208	3252	3297	3341	3386	3430	3475	3519	3564	
58	3608	3653	3697	3742	3786	3831	3875	3920	3964	4009	
59	4053	4098	4142	4187	4231	4276	4320	4365	4409	4454	
9760	4498	4543	4587	4632	4676	4721	4765	4810	4854	4899	
61	4943	4988	5032	5077	5121	5166	5210	5255	5299	5344	45
62	5388	5433	5477	5521	5566	5610	5655	5699	5744	5788	1 4.5
63	5833	5877	5922	5966	6011	6055	6100	6144	6189	6233	2 9.0
64	6278	6322	6367	6411	6456	6500	6545	6589	6634	6678	3 13.5
65	6722	6767	6811	6856	6900	6945	6989	7034	7078	7123	4 18.0
66	7167	7212	7256	7301	7345	7390	7434	7478	7523	7567	5 22.5
67	7612	7656	7701	7745	7790	7834	7879	7923	7968	8012	6 27.0
68	8057	8101	8145	8190	8234	8279	8323	8368	8412	8457	7 31.5
69	8501	8546	8590	8634	8679	8723	8768	8812	8857	8901	8 36.0
9770	8946	8990	9035	9079	9123	9168	9212	9257	9301	9346	9 40.5
71	9390	9435	9479	9523	9568	9612	9657	9701	9746	9790	
72	9835	9879	9923	9968	0012	0057	0101	0146	0190	0235	
73	990 0279	0323	0368	0412	0457	0501	0546	0590	0634	0679	
74	0723	0768	0812	0857	0901	0946	0990	1034	1079	1123	
75	1168	1212	1257	1301	1345	1390	1434	1479	1523	1568	
76	1612	1656	1701	1745	1790	1834	1878	1923	1967	2012	
77	2056	2101	2145	2189	2234	2278	2323	2367	2411	2456	
78	2500	2545	2589	2634	2678	2722	2767	2811	2856	2900	
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81	3833	3877	3921	3966	4010	4055	4099	4143	4188	4232	44
82	4277	4321	4365	4410	4454	4499	4543	4587	4632	4676	1 4.4
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86	6052	6096	6141	6185	6230	6274	6318	6363	6407	6452	5 22.0
87	6496	6540	6585	6629	6673	6718	6762	6806	6851	6895	6 26.4
88	6940	6984	7028	7073	7117	7161	7206	7250	7295	7339	7 30.8
89	7383	7428	7472	7516	7561	7605	7649	7694	7738	7783	8 35.2
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91	8271	8315	8359	8404	8448	8492	8537	8581	8625	8670	
92	8714	8758	8803	8847	8891	8936	8980	9025	9069	9113	
93	9158	9202	9246	9291	9335	9379	9424	9468	9512	9557	
94	9601	9645	9690	9734	9778	9823	9867	9911	9956	0000	
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96	0488	0532	0576	0621	0665	0709	0754	0798	0842	0887	
97	0931	0975	1020	1064	1108	1153	1197	1241	1286	1330	
98	1374	1419	1463	1507	1552	1596	1640	1685	1729	1773	
99	1818	1862	1906	1951	1995	2039	2083	2128	2172	2216	
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02	3147	3191	3236	3280	3324	3369	3413	3457	3501	3546	
03	3590	3634	3679	3723	3767	3812	3856	3900	3944	3989	
04	4033	4077	4122	4166	4210	4255	4299	4343	4387	4432	
05	4476	4520	4565	4609	4653	4697	4742	4786	4830	4875	
06	4919	4963	5007	5052	5096	5140	5185	5229	5273	5317	
07	5362	5406	5450	5495	5539	5583	5627	5672	5716	5760	
08	5805	5849	5893	5937	5982	6026	6070	6115	6159	6203	
09	6247	6292	6336	6380	6424	6469	6513	6557	6602	6646	
9810	6690	6734	6779	6823	6867	6911	6956	7000	7044	7088	
11	7133	7177	7221	7266	7310	7354	7398	7443	7487	7531	45
12	7575	7620	7664	7708	7752	7797	7841	7885	7929	7974	1 4.5
13	8018	8062	8107	8151	8195	8239	8284	8328	8372	8416	2 9.0
14	8461	8505	8549	8593	8638	8682	8726	8770	8815	8859	3 13.5
15	8903	8947	8992	9036	9080	9124	9169	9213	9257	9301	4 18.0
16	9345	9390	9434	9478	9522	9567	9611	9655	9699	9744	5 22.5
17	9788	9832	9876	9921	9965	0009	0053	0098	0142	0186	6 27.0
18	992 0230	0275	0319	0363	0407	0451	0496	0540	0584	0628	7 31.5
19	0673	0717	0761	0805	0850	0894	0938	0982	1026	1071	8 36.0
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21	1557	1601	1646	1690	1734	1778	1822	1867	1911	1955	
22	1999	2044	2088	2132	2176	2220	2265	2309	2353	2397	
23	2441	2486	2530	2574	2618	2662	2707	2751	2795	2839	
24	2884	2928	2972	3016	3060	3105	3149	3193	3237	3281	
25	3326	3370	3414	3458	3502	3547	3591	3635	3679	3723	
26	3768	3812	3856	3900	3944	3989	4033	4077	4121	4165	
27	4210	4254	4298	4342	4386	4431	4475	4519	4563	4607	
28	4651	4696	4740	4784	4828	4872	4917	4961	5005	5049	
29	5093	5138	5182	5226	5270	5314	5358	5403	5447	5491	
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31	5977	6021	6065	6109	6154	6198	6242	6286	6330	6375	44
32	6419	6463	6507	6551	6595	6640	6684	6728	6772	6816	1 4.4
33	6860	6905	6949	6993	7037	7081	7125	7170	7214	7258	2 8.8
34	7302	7346	7390	7435	7479	7523	7567	7611	7655	7699	3 13.2
35	7744	7788	7832	7876	7920	7964	8009	8053	8097	8141	4 17.6
36	8185	8229	8274	8318	8362	8406	8450	8494	8538	8583	5 22.0
37	8627	8671	8715	8759	8803	8847	8892	8936	8980	9024	6 26.4
38	9068	9112	9156	9201	9245	9289	9333	9377	9421	9465	7 30.8
39	9510	9554	9598	9642	9686	9730	9774	9819	9863	9907	8 35.2
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41	993 0392	0436	0481	0525	0569	0613	0657	0701	0745	0789	
42	0834	0878	0922	0966	1010	1054	1098	1142	1187	1231	
43	1275	1319	1363	1407	1451	1495	1540	1584	1628	1672	
44	1716	1760	1804	1848	1893	1937	1981	2025	2069	2113	
45	2157	2201	2245	2290	2334	2378	2422	2466	2510	2554	
46	2598	2642	2687	2731	2775	2819	2863	2907	2951	2995	
47	3039	3083	3128	3172	3216	3260	3304	3348	3392	3436	
48	3480	3524	3569	3613	3657	3701	3745	3789	3833	3877	
49	3921	3965	4010	4054	4098	4142	4186	4230	4274	4318	
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52	5244	5288	5332	5376	5420	5464	5509	5553	5597	5641	
53	5685	5729	5773	5817	5861	5905	5949	5993	6037	6082	
54	6126	6170	6214	6258	6302	6346	6390	6434	6478	6522	
55	6566	6610	6654	6698	6743	6787	6831	6875	6919	6963	
56	7007	7051	7095	7139	7183	7227	7271	7315	7359	7404	
57	7448	7492	7536	7580	7624	7668	7712	7756	7800	7844	
58	7888	7932	7976	8020	8064	8108	8152	8197	8241	8285	
59	8329	8373	8417	8461	8505	8549	8593	8637	8681	8725	
9860	8769	8813	8857	8901	8945	8989	9033	9077	9122	9166	
61	9210	9254	9298	9342	9386	9430	9474	9518	9562	9606	44
62	9650	9694	9738	9782	9826	9870	9914	9958	0002	0046	1 4.4
63	994 0090	0134	0178	0222	0266	0310	0355	0399	0443	0487	2 8.8
64	0531	0575	0619	0663	0707	0751	0795	0839	0883	0927	3 13.2
65	0971	1015	1059	1103	1147	1191	1235	1279	1323	1367	4 17.6
66	1411	1455	1499	1543	1587	1631	1675	1719	1763	1807	5 22.0
67	1851	1895	1939	1983	2027	2071	2115	2159	2203	2247	6 26.4
68	2291	2335	2379	2423	2467	2511	2555	2599	2643	2687	7 30.8
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73	4491	4535	4579	4623	4667	4711	4755	4799	4843	4887	
74	4931	4975	5019	5063	5107	5151	5195	5239	5283	5327	
75	5371	5415	5459	5503	5547	5591	5635	5679	5723	5767	
76	5811	5855	5899	5943	5987	6031	6075	6119	6163	6207	
77	6251	6295	6338	6382	6426	6470	6514	6558	6602	6646	
78	6690	6734	6778	6822	6866	6910	6954	6998	7042	7086	
79	7130	7174	7218	7262	7306	7350	7394	7438	7482	7525	
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81	8009	8053	8097	8141	8185	8229	8273	8317	8361	8405	43
82	8448	8492	8536	8580	8624	8668	8712	8756	8800	8844	1 4.3
83	8888	8932	8976	9020	9064	9108	9152	9196	9239	9283	2 8.6
84	9327	9371	9415	9459	9503	9547	9591	9635	9679	9723	3 12.9
85	9767	9811	9855	9899	9942	9986	0030	0074	0118	0162	4 17.2
86	995 0206	0250	0294	0338	0382	0426	0470	0514	0557	0601	5 21.5
87	0645	0689	0733	0777	0821	0865	0909	0953	0997	1041	6 25.8
88	1085	1128	1172	1216	1260	1304	1348	1392	1436	1480	7 30.1
89	1524	1568	1612	1656	1699	1743	1787	1831	1875	1919	8 34.4
9890	1963	2007	2051	2095	2139	2182	2226	2270	2314	2358	9 38.7
91	2402	2446	2490	2534	2578	2622	2665	2709	2753	2797	
92	2841	2885	2929	2973	3017	3061	3104	3148	3192	3236	
93	3280	3324	3368	3412	3456	3500	3543	3587	3631	3675	
94	3719	3763	3807	3851	3895	3939	3982	4026	4070	4114	
95	4158	4202	4246	4290	4334	4377	4421	4465	4509	4553	
96	4597	4641	4685	4729	4772	4816	4860	4904	4948	4992	
97	5036	5080	5123	5167	5211	5255	5299	5343	5387	5431	
98	5474	5518	5562	5606	5650	5694	5738	5782	5825	5869	
99	5913	5957	6001	6045	6089	6133	6176	6220	6264	6308	
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02	7229	7273	7317	7361	7405	7449	7492	7536	7580	7624	
03	7668	7712	7755	7799	7843	7887	7931	7975	8019	8062	
04	8106	8150	8194	8238	8282	8326	8369	8413	8457	8501	
05	8545	8589	8632	8676	8720	8764	8808	8852	8896	8939	
06	8983	9027	9071	9115	9159	9202	9246	9290	9334	9378	
07	9422	9465	9509	9553	9597	9641	9685	9728	9772	9816	
08	9860	9904	9948	9991	0035	0079	0123	0167	0211	0254	
09	996 0298	0342	0386	0430	0474	0517	0561	0605	0649	0693	
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11	1175	1219	1262	1306	1350	1394	1438	1481	1525	1569	44
12	1613	1657	1701	1744	1788	1832	1876	1920	1963	2007	1 4.4
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21	5554	5598	5642	5686	5730	5773	5817	5861	5905	5948	
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23	6430	6474	6517	6561	6605	6649	6693	6736	6780	6824	
24	6868	6911	6955	6999	7043	7086	7130	7174	7218	7261	
25	7305	7349	7393	7436	7480	7524	7568	7611	7655	7699	
26	7743	7786	7830	7874	7918	7961	8005	8049	8093	8136	
27	8180	8224	8268	8311	8355	8399	8443	8486	8530	8574	
28	8618	8661	8705	8749	8793	8836	8880	8924	8968	9011	
29	9055	9099	9143	9186	9230	9274	9318	9361	9405	9449	
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31	9930	9974	0017	0061	0105	0148	0192	0236	0280	0323	43
32	997 0367	0411	0455	0498	0542	0586	0629	0673	0717	0761	1 4.3
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34	1242	1285	1329	1373	1416	1460	1504	1548	1591	1635	3 12.9
35	1679	1722	1766	1810	1854	1897	1941	1985	2028	2072	4 17.2
36	2116	2160	2203	2247	2291	2334	2378	2422	2465	2509	5 21.5
37	2553	2597	2640	2684	2728	2771	2815	2859	2903	2946	6 25.8
38	2990	3034	3077	3121	3165	3208	3252	3296	3340	3383	7 30.1
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41	4301	4344	4388	4432	4475	4519	4563	4607	4650	4694	
42	4738	4781	4825	4869	4912	4956	5000	5043	5087	5131	
43	5174	5218	5262	5305	5349	5393	5436	5480	5524	5567	
44	5611	5655	5699	5742	5786	5830	5873	5917	5961	6004	
45	6048	6092	6135	6179	6223	6266	6310	6354	6397	6441	
46	6485	6528	6572	6616	6659	6703	6747	6790	6834	6878	
47	6921	6965	7009	7052	7096	7139	7183	7227	7270	7314	
48	7358	7401	7445	7489	7532	7576	7620	7663	7707	7751	
49	7794	7838	7882	7925	7969	8013	8056	8100	8144	8187	
9950	8231	8274	8318	8362	8405	8449	8493	8536	8580	8624	
N.	0	1	2	3	4	5	6	7	8	9	P. P.

N.	0	1	2	3	4	5	6	7	8	9	P. P.
9950	997 8231	8274	8318	8362	8405	8449	8493	8536	8580	8624	
51	8667	8711	8755	8798	8842	8885	8929	8973	9016	9060	
52	9104	9147	9191	9235	9278	9322	9365	9409	9453	9496	
53	9540	9584	9627	9671	9715	9758	9802	9845	9889	9933	
54	9976	0020	0064	0107	0151	0195	0238	0282	0325	0369	
55	998 0413	0456	0500	0544	0587	0631	0674	0718	0762	0805	
56	0849	0893	0936	0980	1023	1067	1111	1154	1198	1241	
57	1285	1329	1372	1416	1460	1503	1547	1590	1634	1678	
58	1721	1765	1808	1852	1896	1939	1983	2026	2070	2114	
59	2157	2201	2245	2288	2332	2375	2419	2463	2506	2550	
9960	2593	2637	2681	2724	2768	2811	2855	2899	2942	2986	
61	3029	3073	3117	3160	3204	3247	3291	3335	3378	3422	44
62	3465	3509	3553	3596	3640	3683	3727	3771	3814	3858	1 4.4
63	3901	3945	3988	4032	4076	4119	4163	4206	4250	4294	2 8.8
64	4337	4381	4424	4468	4512	4555	4599	4642	4686	4729	3 13.2
65	4773	4817	4860	4904	4947	4991	5035	5078	5122	5165	4 17.6
66	5209	5252	5296	5340	5383	5427	5470	5514	5557	5601	5 22.0
67	5645	5688	5732	5775	5819	5862	5906	5950	5993	6037	6 26.4
68	6080	6124	6167	6211	6255	6298	6342	6385	6429	6472	7 30.8
69	6516	6560	6603	6647	6690	6734	6777	6821	6864	6908	8 35.2
9970	6952	6995	7039	7082	7126	7169	7213	7256	7300	7344	9 39.6
71	7387	7431	7474	7518	7561	7605	7648	7692	7736	7779	
72	7823	7866	7910	7953	7997	8040	8084	8128	8171	8215	
73	8258	8302	8345	8389	8432	8476	8519	8563	8607	8650	
74	8694	8737	8781	8824	8868	8911	8955	8998	9042	9086	
75	9129	9173	9216	9260	9303	9347	9390	9434	9477	9521	
76	9564	9608	9651	9695	9739	9782	9826	9869	9913	9956	
77	999 0000	0043	0087	0130	0174	0217	0261	0304	0348	0391	
78	0435	0479	0522	0566	0609	0653	0696	0740	0783	0827	
79	0870	0914	0957	1001	1044	1088	1131	1175	1218	1262	
9980	1305	1349	1392	1436	1479	1523	1567	1610	1654	1697	
81	1741	1784	1828	1871	1915	1958	2002	2045	2089	2132	43
82	2176	2219	2263	2306	2350	2393	2437	2480	2524	2567	1 4.3
83	2611	2654	2698	2741	2785	2828	2872	2915	2959	3002	2 8.6
84	3046	3089	3133	3176	3220	3263	3307	3350	3394	3437	3 12.9
85	3481	3524	3568	3611	3655	3698	3742	3785	3829	3872	4 17.2
86	3916	3959	4003	4046	4090	4133	4177	4220	4264	4307	5 21.5
87	4350	4394	4437	4481	4524	4568	4611	4655	4698	4742	6 25.8
88	4785	4829	4872	4916	4959	5003	5046	5090	5133	5177	7 30.1
89	5220	5264	5307	5351	5394	5438	5481	5524	5568	5611	8 34.4
9990	5655	5698	5742	5785	5829	5872	5916	5959	6003	6046	9 38.7
91	6090	6133	6177	6220	6263	6307	6350	6394	6437	6481	
92	6524	6568	6611	6655	6698	6742	6785	6828	6872	6915	
93	6959	7002	7046	7089	7133	7176	7220	7263	7307	7350	
94	7393	7437	7480	7524	7567	7611	7654	7698	7741	7785	
95	7828	7871	7915	7958	8002	8045	8089	8132	8176	8219	
96	8262	8306	8349	8393	8436	8480	8523	8567	8610	8653	
97	8697	8740	8784	8827	8871	8914	8958	9001	9044	9088	
98	9131	9175	9218	9262	9305	9349	9392	9435	9479	9522	
99	9566	9609	9653	9696	9739	9783	9826	9870	9913	9957	
10000	000 0000	0043	0087	0130	0174	0217	0261	0304	0347	0391	
N.	0	1	2	3	4	5	6	7	8	9	P. P.

Table for conversion of common into natural logarithms.

Log. nat. $z = 2.30258\ 50930$ com. Log. z.

Multiples of $2.30258\ 50929\ 94045\ 68402$

0	0.00000 00000	50	115.12925 46497
1	2.30258 50930	51	117.43183 97427
2	4.60517 01860	52	119.73442 48357
3	6.90775 52790	53	122.03700 99287
4	9.21034 03720	54	124.33959 50217
5	11.51292 54650	55	126.64218 01147
6	13.81551 05580	56	128.94476 52077
7	16.11809 56510	57	131.24735 03007
8	18.42068 07440	58	133.54993 53937
9	20.72326 58369	59	135.85252 04866
10	23.02585 09299	60	138.15510 55796
11	25.32843 60229	61	140.45769 06726
12	27.63102 11159	62	142.76027 57656
13	29.93360 62089	63	145.06286 08586
14	32.23619 13019	64	147.36544 59516
15	34.53877 63949	65	149.66803 10446
16	36.84136 14879	66	151.97061 61376
17	39.14394 65809	67	154.27320 12306
18	41.44653 16739	68	156.57578 63236
19	43.74911 67669	69	158.87837 14166
20	46.05170 18599	70	161.18095 65096
21	48.35428 69529	71	163.48354 16026
22	50.65687 20459	72	165.78612 66956
23	52.95945 71389	73	168.08871 17886
24	55.26204 22319	74	170.39129 68816
25	57.56462 73249	75	172.69388 19746
26	59.86721 24178	76	174.99646 70675
27	62.16979 75108	77	177.29905 21605
28	64.47238 26038	78	179.60163 72535
29	66.77496 76968	79	181.90422 23465
30	69.07755 27898	80	184.20680 74395
31	71.38013 78828	81	186.50939 25325
32	73.68272 29758	82	188.81197 76255
33	75.98530 80688	83	191.11456 27185
34	78.28789 31618	84	193.41714 78115
35	80.59047 82548	85	195.71973 29045
36	82.89306 33478	86	198.02231 79975
37	85.19564 84408	87	200.32490 30905
38	87.49823 35338	88	202.62748 81835
39	89.80081 36268	89	204.93007 32765
40	92.10340 37198	90	207.23265 83695
41	94.40598 88128	91	209.53524 34625
42	96.70857 39057	92	211.83782 85555
43	99.01115 89987	93	214.14041 36484
44	101.31374 40917	94	216.44299 87414
45	103.61632 91847	95	218.74558 38344
46	105.91891 42777	96	221.04816 89274
47	108.22149 93707	97	223.35075 40204
48	110.52408 44637	98	225.65333 91134
49	112.82666 95567	99	227.95592 42064
50	115.12925 46497	100	230.25850 92994

Table for conversion of natural into common logarithms.

Com. Log. $z = 0.43429\ 44819$ Log. nat. z.

Multiples of $0.43429\ 44819\ 03251\ 82765$

0	0.00000 00000	50	21.71472 40952
1	0.43429 44819	51	22.14901 85771
2	0.86858 89638	52	22.58331 30590
3	1.30288 34457	53	23.01760 75409
4	1.73717 79276	54	23.45190 20228
5	2.17147 24095	55	23.88619 65047
6	2.60576 68914	56	24.32049 09866
7	3.04006 13733	57	24.75478 54685
8	3.47435 58552	58	25.18907 99504
9	3.90865 03371	59	25.62337 44323
10	4.34294 48190	60	26.05766 89142
11	4.77723 93009	61	26.49196 33961
12	5.21153 37828	62	26.92625 78780
13	5.64582 82647	63	27.36055 23599
14	6.08012 27466	64	27.79484 68418
15	6.51441 72285	65	28.22914 13237
16	6.94871 17105	66	28.66343 58056
17	7.38300 61924	67	29.09773 02875
18	7.81730 06743	68	29.53202 47694
19	8.25159 51562	69	29.96631 92513
20	8.68588 96381	70	30.40061 37332
21	9.12018 41200	71	30.83490 82151
22	9.55447 86019	72	31.26920 26970
23	9.98877 30838	73	31.70349 71789
24	10.42306 75657	74	32.13779 16608
25	10.85736 20476	75	32.57208 61427
26	11.29165 65295	76	33.00638 06246
27	11.72595 10114	77	33.44067 51066
28	12.16024 54933	78	33.87496 95885
29	12.59453 99752	79	34.30926 40704
30	13.02883 44571	80	34.74355 85523
31	13.46312 89390	81	35.17785 30342
32	13.89742 34209	82	35.61214 75161
33	14.33171 79028	83	36.04644 19980
34	14.76601 23847	84	36.48073 64799
35	15.20030 68666	85	36.91503 09618
36	15.63460 13485	86	37.34932 54437
37	16.06889 58304	87	37.78361 99256
38	16.50319 03123	88	38.21791 44075
39	16.93748 47942	89	38.65220 88894
40	17.37177 92761	90	39.08650 33713
41	17.80607 37580	91	39.52079 78532
42	18.24036 82399	92	39.95509 23351
43	18.67466 27218	93	40.38938 68170
44	19.10895 72037	94	40.82368 12989
45	19.54325 16856	95	41.25797 57808
46	19.97754 61675	96	41.69227 02627
47	20.41184 06495	97	42.12656 47446
48	20.84613 51314	98	42.56085 92265
49	21.28042 96133	99	42.99515 37084
50	21.71472 40952	100	43.42944 81903

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Errors found in Glover during Chambers 6-figure proof-readi

		x	for	read
Page 438	$\sqrt[3]{x}$	12	2·289 4286	2·289 4285
449	$\sqrt{x}$	572	23·916 0304	23·916 5215
449	$\sqrt[3]{x}$	572	8·301 0304	8·301 0305
455	$\sqrt{x}$	896	29·932 2591	29·933 2591
456	$\sqrt[3]{x}$	936	9·781 9466	9·781 9465

G.M